



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



LIBRARY
UNIVERSITY OF CALIFORNIA



THE

667



AMERICAN

JOURNAL OF INSANITY.

EDITED BY THE

MEDICAL OFFICERS OF THE NEW YORK STATE
LUNATIC ASYLUM.

VOL. XXXVI. - 37

The care of the human mind is the most noble branch of medicine.—GROTIUS.

STATE LUNATIC ASYLUM.

UTICA, NEW YORK.

1879-80.



ROBERTS & CO., PRINTERS,
HERALD OFFICE, UTICA.

INDEX TO VOL. XXXVI.



	PAGE.
Association of Superintendents of American Asylums, Pro- ceedings of,.....	139
Asylum Superintendents, Responsibility of,	259
Bonfigli, Dr. Utterior Consideration on the Discussion of Moral Insanity,	224, 476
Brush, E. N., M. D. Sarcoma of the Dura Mater, Case of,...	342
Brain, Injury to, Clinical Case. John Curwen, M. D.,.....	132
Curwen, John, M. D. Clinical Case, Injury to Brain,	132
Credibility of the Testimony of those who have Recovered from Insanity,.....	378
Draper, J., M. D. Responsibility of Insane in Asylums,	1
Deecke, Theodore. Urea and Phosphoric Acid in the Urine in Anæmia,	50
Deecke, Theodore. Structure of Vessels of the Nervous Cen- ters, &c.,.....	328, 422
Echeverria, M. G., M. D. Pathology of Nocturnal Epilepsy, 74	
Epidemic of Hysterical Demonomania,	230
English Lunacy Laws,	294, 460
Edwards, Isaac, LL. D. Medical Jurisprudence,	381
English Psychological Literature,.....	441
Gray, John P., M. D. Hyoscyamia in Insanity,	394
Hysterical Demonomania, Epidemic of,.....	230
Hyoscyamia in Insanity. Dr. John P. Gray,.....	394
Insane Colony at Gheel. A. M. Shew, M. D.,.....	18

- Lindsay, W. Lauder, M. D., &c. Rib-Fracture in English Asylums, 28
- Lunacy Laws, English, 294
- Localizations of Cerebral Functions, ... 253
- Lindsay, W. Lauder, M. D. • The Protection Bed and its Uses, 404
- Moral Insanity, Discussion on. Dr. Bonfigli, 224, 476
- Medical Jurisprudence. Isaac Edwards, LL. D., 381
- Newcomer vs. Van Deusen. Responsibility of Asylum Superintendents, 259
- Pathology of Nocturnal Epilepsy. M. G. Echeverria, M. D., 74
- Proceedings of the Association of Superintendents of American Asylums, 139
- Protection Bed and its Uses. W. Lauder Lindsay, M. D.,... 404
- Psychological Retrospect, English Psychological Literature, . 441
- Responsibility of the Insane in Asylums. J. Draper, M. D., . 1
- Rib-Fracture in English Asylums. W. Lauder Lindsay, M. D., 28
- Reports of American Asylums, 1877-78. Notice of, 90
- Responsibility of American Asylum Superintendents,..... 259
- Reports of American Asylums, 1878-79. Notice of,.... 349, 497
- Shew, A. M., M. D. The Insane Colony at Gheel, 18
- Structure of the Vessels of the Nervous Centers in Health, and their Changes in Disease. Theodore Deecke, .. 328, 422
- Sarcoma of the Dura Mater, Report of a Case. E. N. Brush, M. D., 342
- Urea and Phosphoric Acid in the Urine in Anæmia. Theodore Deecke,..... 50
- Ultior Considerations on the Discussion of the so-called Moral Insanity. Dr. Bonfigli,..... 224
- Workman, Joseph, M. D. Bonfigli on Moral Insanity,... 224, 476

BOOK NOTICES.

Giles & Co. Views Concerning Civilization. O. Everts, M. D.,	121
Practical Surgery. J. Ewing Mears, M. D.,	124
Spermatorrhœa. Roberts Bartholow, M. D.,	125
Notes on the Treatment of Skin Diseases. Robert Living, M. D.,	125
Lectures on Electricity in its Relations to Medicine and Surgery. A. D. Rockwell, M. D.,	125
Manual of Psychological Medicine. Bucknill and Tuke,	233
Physiology and Histology of the Cerebral Convolutions. Charles Richet, M. D. Translated by E. P. Fowler, M. D.,	238
Physiological Therapeutics. T. W. Poole, M. D.,	239
General Index of <i>Journal of Mental Science</i> ,	240
The Brain and its Diseases. Thomas Stretch Dowse, M. D.,	364
Brain Work and Over-work. H. C. Wood, M. D.,	521
A Practical Treatise on Nervous Exhaustion, (Neurasthenia.) George M. Beard, A. M., M. D.,	521
Man's Moral Nature. R. M. Bucke, M. D.,	530
<i>Index Medicus</i> ,	533
Atlas of Human Anatomy,	535

PAMPHLETS, TRANSACTIONS OF SOCIETIES,
REPORTS, &c., NOTICED.

Report on the Corpus Luteum. Prof. John C. Dalton,	124
Tenth Report of State Board of Health of Mass., 1879,	126
Transactions of the Medical and Chirurgical Faculty, Maryland, 1878-1879,	127, 241
Twelfth Report of State Board of Charities of New York, 1878,	128
Fourth Report of Commissioners of Charities, &c., Michigan, 1877-78,	128
Chloral Inebriety,	129
New South Wales. Report of Inspector of the Insane,	129
Progress of Medical Science in the Nineteenth Century,	130
Value of Absent Tendon Reflex, with Analysis of Cases,	130

A Contribution to the Treatment of Chronic Trigeminal Neuralgia,	130
Eye Troubles in General Practice,	131
Transactions of the Ohio State Medical Society, 1879,	243
Twenty-First Report of the Commissioners in Lunacy for Scotland, 1879,	245
State Preventive Medicine,	246
Transactions of the Medical Society State of Tennessee, 1879,	247
Insane Drunkards,	248
Dipsomania Distinguished from Drunkenness,	249
The Physiological and Therapeutical Effects of Salicylic Acid,	249
Recoveries from Mental Disease,	250
Notes of Hospital and Private Practice,	251
Reflex Cerebral Hyperæmia,	251
Remarks on Ovariectomy, with Cases,	251
Ophthalmology in the last Quarter Century,	252
Transactions of the American Medical Association, Vol. XXX,	369
Sixth Report of the State Commissioner in Lunacy, New York, 1879,	373
Report of the Board of Health of Nashville, 1879,	375
Neurotomy of the Trigemini,	376
Thirteenth Annual Report of State Board of Charities, New York,	534

SUMMARY—NOTES AND ITEMS.

Appointment of Dr. Orpheus Everts as Professor of Medical Jurisprudence in Indiana Medical College,	135
Notice of Plans of the Second County Lunatic Asylum, in Gloucestershire, Eng.,	135
Reports and Pamphlets Received,	137-8
Resignation of Dr. C. C. Forbes,	257
Notice of <i>Alienist and Neurologist</i> ,	258
Appointment of Consulting Board to the City Asylums of New York,	377
Resignation of Dr. William Hailes,	377

Resignation of Dr. W. Strew,	377
Resignation of Dr. Lauder Lindsay.....	377
Election of Prof. Charcot and Dr. M. G. Echeverria to Hon- orary Membership in the British Medico-Psychological Association,.....	378
Errata,	380
Appointment of Dr. H. H. Richardson,.....	536
Appointment of Dr. James G. McBride,	536
Fire in Kansas State Asylum,	536
Obituary. Death of Dr. Edward R. Hun,	536
Obituary. Death of Dr. William S. Chipley,	538
Appointment of Dr. Orpheus Everts to the Superintendency of the Sanitarium,	539
Appendix to Report of Committee on English Lunacy Laws, .	539
Notice of Annual Meeting of the Association,	540

AMERICAN JOURNAL OF INSANITY, FOR JULY, 1879.

THE RESPONSIBILITY OF THE INSANE, IN ASYLUMS.*

BY J. DRAPER, M. D.,
Superintendent of the Asylum for the Insane, Brattleboro, Vermont.

I have selected, as the subject of this paper, The Responsibility of the Insane, in Asylums. In other words, it may be designated an inquiry in respect to the responsibility of the insane, while subject to the duress and regulations of an asylum or hospital for treatment. It is an aspect of the great question of mental responsibility, from the standpoint in which we see the most of it; but so far as my acquaintance with the literature of the subject goes, has not been specially discussed. That it is an aspect of sufficient importance to be separately treated, I am disposed to believe; and while I do not expect to treat it exhaustively, I hope to open it for an expression of views that may lead to our mutual and practical advantage.

The civil responsibility of the insane has, I conceive, numerous aspects and relations in which it may be viewed, and is worthy of careful consideration in any direction.

The subject of criminal responsibility is one to be chiefly encountered in the courts, and is determined by

*Read before the Association of Superintendents of American Asylums for the Insane, at Providence, R. I., June, 1879.

the careful weighing of evidence, and the application to the individual case of the medico-legal tests laid down in the science of jurisprudence. Upon this part of the subject I feel it would be presumption for me to tread. It has been exhaustively treated by one of the fathers of this Association, and one whose opinions are authority wherever the English tongue is spoken. Before him we all bow in honor, and to his dicta respond, Amen!

But there is to us of the specialty an every-day aspect to this question. We have points arising which involve the query of responsibility or irresponsibility, between the rising and setting of every sun. No court can be convened to settle the point, and personal experience must stand in place of the witness box. Between delusions which modify, and insanity which completely obscures all understanding, there are nice shades of mental responsibility. We recognize the existence of insanity in the total absence of any delusion, in some cases; in others, the existence of a delusion is the only evidence of mental unsoundness, and we know that responsibility in one individual can not be measured by that of another. In this, every man is a law unto himself. Even in the normal state we find varying degrees of individual accountability, as the experience of every one of us will attest.

In the care and management of our households, I think I shall echo the experience of all when I assert that we have to deal with very few totally irresponsible persons. Some individuals are quite responsible at times, and irresponsible at other times. Some are at no time wholly responsible, or wholly irresponsible. Some are responsible in some things, and not so in others. In the courts we are called to give opinions as to the sanity or insanity of persons, but not to deter-

mine their responsibility, except so far as the fact of insanity may bear upon it, in the minds of a jury, who may determine that question in a manner at variance with our own views. But, in point of practice, do we not hold to responsibility those who are under our charge more largely than we are ready to admit? Do we not instinctively recognize more practical responsibility than theoretically we could defend? Do we not find we can trust and depend more upon the insane than we feel safe in admitting? Are we not led by our daily experience in advance of the legal standard of accountability, especially if our effort be to solve by our observations those problems that crowd and press upon the pathway of progress, which I believe we are all treading, and in which we are making steady and sure advances?

If we scrutinize with any minuteness the daily working of our households, we almost surprise ourselves to see how little the regulations which we make for their government recognize irresponsibility. The rules which we establish apply to presumably accountable persons. Such, it is true, are those whom we employ; but these constitute but a fraction of those composing the entire family. Are the great majority, then, outside all rules and regulations? Far from it. They neither feel nor act as if conscious or desirous of being placed in that attitude. The irresponsible are the individual exceptions; the rule is accountability—if not full, at least to a measurable degree. Practically, if not in theory, insanity and irresponsibility are not synonymous terms, in our every-day experience.

It was in the year 1867 that Dr. Earle, of the Northampton Hospital, in Massachusetts, in his annual report for that year, announced to his co-laborers that he had so far burst the bonds of tacit constraint, be-

tween his patients and himself, as to discuss in public assembly the malady under which they were all laboring. Profoundly versed in human nature, he rightly judged that he might discuss the subject even to the minutiae, if he wisely avoided personalities. However explicit and graphic his delineation and illustrations of insanity might be, he was safe if he left their application to his hearers, for all would readily discover their fitness to the cases of their neighbors.

I did not then know, as I do now, the man who thus ventured on forbidden ground, but I do know that his compeers gravely shook their heads at the idea of including, under the caption of secular entertainments, "Typhomania," "Apoplexy," "Paralysis," "Nature, causes and forms of Insanity," for all these appear in the list reported for the year referred to. He himself informs us that, "remembering how cautiously any allusion to the insanity of a person is generally avoided, when in conversation with him, and further still, in view of the prevalent fear of the insane in the popular mind," and "notwithstanding his long experience with this class of persons, the attempt was approached with some doubts and misgivings," but "the event demonstrated the folly of any fear on these grounds."

It will, perhaps, hardly be regarded as a digression, if I refer to another method adopted by our distinguished leader, which, so far as I know, is the outgrowth of his own experience in practical management. I refer to his custom of discussing in open assembly the relations of employes to patients, their duties and shortcomings, and also discoursing upon the requirements of the institutions in respect to the inmates themselves, to the end that the standard rules and principles of household government, might be fully understood, and more readily complied with, by all the members of his complex family.

This idea, new and unique to me when I entered upon the duties of superintendent, I saw the advantages of in theory at once, but believed that the gray hairs of a score of years, at least, would have to be added to my head, before I could venture upon this patriarchal method of family instruction. Year by year however, lessened the objections in my mind to the adoption of the plan of taking a public occasion, to speak of the perplexities and frictions of every-day life, growing out of misunderstanding of responsibilities and relations. Five years brought me to an incidental discourse on the "Evils of a Gossiping Habit," especially, and the importance of a better improvement of time, applicable alike to employes and patients. Another one determined me to close our last winter's course of entertainments, with a carefully considered and prepared lecture, on the "Principles of Household Government in Insane Asylums," dwelling first, particularly upon the qualities most essential in employes for the discharge of their mission, and following with a direct address to the patients, showing that the organization and objects of such institutions were wholly in their interest, and that if to them they seemed to lack much of perfection, still, they must not forget that it was yet the vexed question of the hour, how to reach the individual, and meet his requirements in the fullest manner, that more or less personal sacrifices must be made, and that perhaps in this view, it was the individual that was yet laggard in swinging into line. Finally reminding them that they had something to do with the working out of their own salvation,—that they were not to be passive agents,—and closing with an appeal to them to fight against their tendencies to inaction, reverie, and purposeless thought, assuring them that such effort if made, would not be devoid of benefit,

and would do more than aught else toward enabling them to resist the morbid and chronic complainings, incident to the interchange of individual grievances, which constituted the greatest drawback to the best practical results. In this detail it will be seen that responsibility on the part of the insane was far from being ignored, and I believe it will not be your judgment that it was too far assumed.

I may add that the substance of this address was approved generally by both employes and patients, who in individual expressions afterward gave it hearty endorsement, and so far strengthened me in my view, that I mentally resolved upon an annual repetition of the effort, by devoting one evening in each winter's course of entertainments to the discussion in like manner of those questions of uppermost importance, at the time selected, to the welfare of the household.

At the Vermont Asylum, as at many others I believe, the religious services on Sundays are conducted by the clergymen of the town and immediate vicinity, and I have often been consulted by them as to what kind of sermons would best meet the want of such an audience. My reply has always been, preach what you would to your own people! Do not attempt to adapt yourself to weakened minds! That the insane, if reached at all, are reached by the same means as are the sane, none of us have any reason to question; and barring the doctrinal and emotional elements, the stronger the effort, the better the result. Sharp critics there are among the insane, and quick their perception of any attempt of the preacher to deviate from his direct and natural way to meet the occasion which he misapprehends. The result is usually unsatisfactory to both parties. Thus far I have considered only how far we are practically accustomed to regard

our patients as responsible in respect to the regulations and discipline of an asylum, and it will be seen that we very largely hold them in this light.

But there is a reason for this. We believe it to be for their welfare to assume their responsibility in these respects. It is true that we are obliged every day to recognize irresponsibility in many ways, and to overlook on this score many things; but by the pursuance of this policy, we tend to support and strengthen those in our charge, in respect to accountability, and to develop it out of a doubtful and vacillating state.

I pass in the second place, to an inquiry into the causes of irresponsibility in the insane.

Morbid impulse is often the source of a violent act, and perhaps as completely exempts its unhappy subject from responsibility, as any recognized phase of insanity. From this result homicidal and suicidal acts, tragedies of the most appalling character, which, in some instances, beyond doubt, are as irresistible as an epileptic seizure, and as completely devoid of consciousness, or any distinct impression upon the memory, as a convulsive attack. But morbid impulse may not manifest itself always in explosive acts. It may, in a silent manner, underlie not alone certain acts, but the very life of the individual, leading little by little, and step by step, through a succession of strange and erratic manifestations, to the final complete dethronement of reason and accountability.

Again, responsibility may be completely lost by reason of maniacal excitement, or so modified and weakened by a certain abnormal exaltation, that great allowances must be made, if indeed any degree of accountability can be recognized. So too, the depression of melancholia may completely unseat responsibility, and must, if it exist in any degree, essentially weaken it.

Hallucinations of sense, so common among the chronic insane, also very greatly modify and destroy accountability. Monomania, too, if well pronounced, justly exempts its subject from responsibility, wholly or partially. But it is when we reach those forms of insanity characterized by moral perversions and abnormalities, that we experience the greatest embarrassments. Deficiencies of intellectual power, the most apparent of any phase of insanity, affect responsibility in the clearest manner. These are recognized by the common observation of mankind, and require no words of demonstration or defense. But when along with acute intellect there exists moral idiocy or perversity, it is not so easy to see extenuating conditions. Wherever there is intellectual brightness, it is hard to demonstrate to the common mind, moral imbecility, and the disposition is to regard the individual as knowing better than he behaves, and deserving the consequences of his indiscretions.

We see two classes of cases which give especial perplexity and annoyance in respect to order and discipline, within or without asylums, and for whom the plea of insanity comes like a merciful friend to the rescue. One class are characterized by aggravations of natural traits, and the other by perversions of the normal disposition. In neither class is there notable excitement or depression; neither hallucinations nor monomania, of necessity. In the first class, very often there is an inherited predisposition to the development of insanity; in the latter it less frequently underlies it. The development of cases of the first class is a part of the normal growth of the individual. The headstrong temper, and vicious propensities of the child, grow into and form an adult character out of line with that of the average of mankind. Sullenness and suspiciousness

are more often prominent than frankness and disingenuousness. Their purposes are sinister, rather than direct and open, and if the temper is controlled from violent outbursts, it is only to be manifested in a covert way, and artifice and treachery play actively in the life of the individual. In such we may expect any manifestations, save those actuated by what we term moral principle. Such characters approach, if they do not constitute the criminal type. There is too much method in their acts to exempt them from responsibility altogether, and yet to a certain extent they are irresponsible, inasmuch as they are prompted by innate tendencies as irresistible as those predispositions which underlie the lives of better men. They constitute the class of lunatics justly termed dangerous. Often to faulty constitutional development are superadded delusions or hallucinations. Secretiveness is a dominant feature, and absence of excitement or depression—those variations which characterize the insane state most commonly, are usually wanting. There is, therefore, the power to a greater or less extent—of reasoning, and of calculating the consequences of their acts. Irresponsible they are, in so far as they may be under the dominion of an abnormal mental constitution, or morbid states of delusion, or hallucination, which obscure their power of discriminating between right and wrong, and which interfere with the natural freedom of the will.

More dangerous persons I can not conceive of, than those who, influenced by malignant motives, and lost to all healthy moral sense, are yet capable of seeing the situation in which they are placed, and knowing that their position as inmates of an asylum is one of recognized irresponsibility, coolly, and sometimes openly declare their immunity from the death penalty, or any serious punishment for any crime they might commit

thus circumstanced. The class of religious fanatics, whom Bonaparte most feared, and characterized as most dangerous, surely are not more so, and may be more nearly akin to the class we are noticing than we are aware of, if their histories were thoroughly known and understood.

It is to me the most difficult problem of all to determine the true responsibility of these calculating madmen. Not ten years ago one was under my observation, who well illustrated the condition I have endeavored to portray. Being released from hospital he made good his oft-repeated assertion, that "he'd as lief kill a man as a dog," by shooting in the manner of an assassin, in cold blood, one who had in an indirect way given him offense, or interfered with his plans. This man subsequently ended his own life, by violence, in an asylum. Undoubtedly a mistake was made in his release from confinement. In such cases it is at least safe to act upon the presumption, that the man may carry out his avowed threats.

I have learned to *practically* regard all persons as largely accountable, who have so clear an idea of their situations as to presume upon their immunity in respect to criminal acts, from the simple fact of being declared insane. *Theoretically* the insanity of a person I believe may always be questioned, when its subject seeks shelter underneath its protecting shadow.

The second class of troublesome patients are those who seem to delight in insidious and malicious acts, and who are more dangerous as instigators of others, than perpetrators themselves. They glory rather in acts of demoralization, than of violence or blood. Their influence is especially pernicious to the welfare of a household. It often more than counterbalances, for a time, that of the authorities of an asylum. They

seem to take a morbid pleasure in prejudicing the minds of new comers against "the powers that be," and imbuing them with the impression that they "are not ordained of God." The vicious propensities are active, and it is a mooted question whether they really believe the misstatements they make, hence labor under delusions, or whether they indulge their viciousness from an insane enjoyment of what comes of it.

One illustration of such a type comes to my mind—of an elderly man, quiet and gentlemanly in demeanor, of few words, uniform in respect to freedom from noticeable variations, who could appear rational and reliable on all topics of ordinary discourse; in short, needed to be known long in order to be fully appreciated, but every new person who fell into association with him was for a time misled and injured by him. His favorite method of beginning with new comers, was to relate Æsop's fable of "The Fox and the Sick Lion," to indicate to them that they were entrapped, as the beasts were who visited the lion in his cave, whose foot-prints the fox observed "all pointed forwards, and none backwards." The moral was further enforced by the statement of the number of years he had himself been in the lion's den, and by the citation of a number of his fellows who could attest to still longer detention, with no prospect of discharge unless by clandestine aid. Such persons can not be held to very strict accountability. Their moral sense is too far degenerated; but by reason of their pernicious power, their isolation from recent cases becomes, to a great extent, a necessity, if we bear in mind that grand constitutional principle of government, "the securing of the greatest good to the greatest number."

Experience has, I doubt not, convinced all of us that the presence of an adequate motive may greatly

assist self-control. In the daily round of asylum life we constantly observe it. Even the most restless and irritable, will for the sake of some change or indulgence, as the privilege of attending an entertainment, or enjoying a special walk or ride, exercise self-control sufficient for the occasion, and even for a considerable time in anticipation of it. There is no calculating the full influence of even whimsical motives. I was told, some years ago, by the superintendent of an asylum, that a patient of his who recovered from an attack of suicidal melancholia, declared that she was only deterred from the act by the fear that, if she died, her daughter would never get her clothes, especially a silk dress upon which she set great store. If so slight a consideration as this was sufficient to restrain a person from suicide, surely we ought never to fail to press upon our patients all reasonable and proper motives, to sustain them from despair, and incite them to exertion; nor to despair ourselves of reaching, in this way, almost all cases. That responsibility is very largely proportionate to the influence of motives, can hardly be questioned. Is it not one test?

I know of nothing more discouraging to a patient who retains the power of realizing his situation, and reflecting upon it, than the comprehension of the fact that by common consent he is looked upon as incapable of exercising any civil rights that would be valid in common law. Any business transaction performed by an inmate of an asylum, if of any consequence, is not only liable, but almost certain to be questioned or contested. My own experience differs from that of others, if we do not often see that many of our patients are competent to execute many business transactions in a thoroughly sound way; and to the extent of our convictions in this respect, I hold it to be our duty to sustain them in these rights.

As the professional guardians of the insane, our duties are two-fold. Not only should we protect them from the consequences of their insanity, and defend them from acts growing out of their insane state, but so far as we are warranted by the results of our observation, endeavor to establish and advance the standard of responsibility. In respect to our understanding of the laws of human responsibility, I believe we are but in the twilight of the morning. Among ourselves I know no more accurate practical test of our own views, as measured by our own minds, than is indicated in our practice by our use of restraining means, in the broadest application of that term.

With me it is a growing conviction that there is more responsibility existing in the insane than the public supposes, or the common law recognizes; and I believe it to be our duty to support that responsibility in individual cases and in the legal sense to the utmost extent. By sustaining the legal competency of such patients, as we have good reason to believe are competent, notwithstanding their derangement, and supporting them in their civil rights to the fullest practicable extent, I believe we not only wield an additional curative means in their behalf, but put ourselves in the way to lead to more accurate discriminations, whereby the latitude of individual accountability may be gradually extended.

Moral responsibility, no less than legal, is to be held intact, and cultivated. In despair our patient may abandon it, or renounce it in the violent outbursts of distraction, but so long as there remains an appreciation of this principle, let it be upheld by every possible help. In the measurement of individual responsibility we must understand well the machinery that governs, and the springs of action in the human mind. It is true, I

believe, that we have rare opportunities for the observation of human nature in its anatomy, untrammelled in its manifestations by the conventionalities of sane society. We must study to know the working of our patients' minds, and always remember that we may be deceived in supposing a person demented, who is reticent and indifferent to those about him. With total dementia there must co-exist that laxity of personal habits and inattention to the calls of nature which, in the normal state, the individual is never unmindful of, and which, so long as any intelligence remains, will be responded to. In a few instances I have found, to my great surprise, that persons reckoned as demented for long periods of time, and even to some extent indifferent to personal habits, have been simply deluded and careless from preoccupation, but had really observed, and observed correctly, much that had transpired and were correct in memory, so far as observation of facts were concerned. And this leads to the consideration of how far the memory of the insane may be trusted.

Perhaps there is no more vital question in connection with mental responsibility than the competency of the insane as witnesses, and I make it the concluding one in this paper. As a practical question it has to us some very important bearings. In this era of investigation the testimony of the insane has figured in a somewhat prominent manner. The unreflecting public has seemed inclined to accept it, with great credulity. No matter how improbable the story, how inconsistent with the common philanthropy and humanity of our existing civilization, it has seldom been too sensational to be credited. In point of fact such testimony has been found practically unreliable and worthless, under close sifting and the rigid application of rules of law. Submitting the facts to the test of our every-day experi-

ence, do we arrive at any different estimate of it? Certainly we admit it so far as it is corroborated by undisputed evidence, and so far as it tends to corroborate other undoubted testimony; but do we never rely upon it alone, in respect to the establishment of a fact? The response to this, I believe, must be in the language of the popular dramatic satire of the day, "hardly ever." No doubt this point is one upon which every member of this Association has bestowed much thoughtful attention, and some may have arrived at clearer conclusions than the writer of this paper. If so, I trust we shall have the benefit of such conclusions. Speaking for myself, I am not accustomed to prejudge it as worthless, simply by reason of the insanity of the person. In a general way, I believe the memory of insane persons may be relied upon in respect to facts occurring previously to the development of their insanity, and to a very considerable extent regarding facts of observation occurring during the period of their insanity. But in regard to facts relating to themselves, while insane, I believe their testimony must always be taken with allowances. In many instances, it is wholly unreliable. In theory and in practice this holds true in my estimation, as a rule. The existence of pathological conditions, morbid impulse, mental excitement or depression, hallucinations or delusions, emotional disturbances or moral perversity, all conspire to pervert one's apprehension of facts, and to color with extravagant tints, or darken by morbid suspicion and doubt, the motives and acts of others toward themselves. We see constantly, the evidence of this misapprehension of facts. Often in the same individual, we see at different times these opposite feelings manifested. A patient in a state of exaltation, overflows with appreciation, and magnifies the ordinary services which are his just due, into special favors. In

the opposite state, the melancholic or perverse condition, he feels slighted, neglected, persecuted, even when special efforts are made for his comfort and welfare, and unless he recovers, never realizes that the difference and difficulty was with himself, and those whom in the one mood, he lauded as the most faithful and considerate, and in the other, condemned as faithless, inconsiderate, and even abusive, only pursued a uniform course in accordance with the requirements of duty and fidelity in which they had been instructed.

The testimony of fully recovered patients affords to us the most convincing proof of the necessity for extreme caution in receiving their statements, while deranged, in reference to themselves. I doubt not the experience of every one in our specialty will supply illustrative cases in support of this view. When a patient emerges from the mists of insanity, which have for months enshrouded his mental vision, it is like the break of day after a night of wanderings. With the return of self-consciousness, and ability to reflect upon the vagaries the memory recalls, and when a realization of his experiences comes home to him the whole situation is reviewed anew, and from a healthful in lieu of a morbid standpoint. There is then no need to labor to convince him of the judiciousness of his treatment or the necessity for restraint. He rights himself. He wonders at the illusions, the suspicions, the doubts that possessed him, avows, and not unfrequently apologizes for them. After his discharge he writes back grateful letters, and rejoices that he can dismiss the impressions and misconceptions and distrust with which he regarded those who were his custodians and attendants. But if not restored to the normal and healthy state of mind, the morbid feelings continue, and often grow in intensity. We see both these pictures in real life. It

is the morbid impressions of unrecovered patients that fill the popular mind with exaggerated and perverted views of asylums and their management. Honest they undoubtedly are, but their premises are false: their standpoint a quicksand. Those who have previously known these individuals to be persons of truth and veracity, do not doubt their statements, and do not see wherein they are wrong. Our closer acquaintance with them, and more intimate observation of the phases of insanity, enable us to trace all these morbid ideas and feelings to their true source, and lead us, for the best of reasons, to doubt the competency of the insane as witnesses, in respect to their own experiences, when full recovery has not taken place.

It has not been the object of the writer to advance any new standard of mental responsibility, but rather to develop some of the practical aspects of the question. The whole subject, notwithstanding the progress of the nineteenth century, is still in a measure crude in its generalizations. Its final solution must depend much upon the observations of practical men; and those having the care of the insane are entitled to large authority in the matter. The conclusions thus far reached, in their application, happily lean to the side of humanity. Is it too much to presume that, with the further development of the laws of human responsibility, the more exact ends of both mercy and justice may be ultimately attained?

THE INSANE COLONY AT GHEEL.*

BY A. M. SHEW, M. D.,

Superintendent, Hospital for the Insane, Middletown, Connecticut.

How to provide for the indigent insane in the best manner consistent with their own welfare, the safety of community, and with due regard to economy, is a problem that has puzzled municipalities, states and nations. In the olden time, when all deranged persons were believed to be possessed by devils or evil spirits, the Christian conscience was apparently lulled into restfulness respecting their deplorable condition, by the hopelessness of any contest with his Satanic majesty. On no other supposition can we account for the apathy existing among civilized nations, and the cruel, yea, barbarous provision made for this afflicted class, up to the close of the last century. We, of a later generation, can hardly credit the official records of those dark ages of lunacy. Recall for a moment the history of old Bedlam, more recently known as Bethlem Hospital, where for nearly five hundred years, the insane were kept chained in dungeons, scourged by cruel keepers selected for the office from among the worst criminals who were serving life sentences in the public jails, and visited only once a year by a physician, for the purpose of bleeding and purging. The same facts existed respecting other receptacles for the insane, until at the close of the last century, through the labors of Pinel, in France, and the Society of Friends in England, more enlightened views respecting the nature of insanity began to prevail, and as a result, more humane methods of treatment.

*Read before the Association of Superintendents of American Asylums for the Insane, at Providence, R. I., June 11, 1879.

As an exception to what has been said, there existed at Gheel, Belgium, a colony of the insane dating back to the seventh century. Having its origin in romance and superstition, it developed into a great system of governmental care of two thousand of the quiet chronic insane. At a distance of twenty-seven miles from Antwerp, in a south-easterly direction, lies a tract of low country, originally barren, desolate and unproductive, which, by draining, cultivation and fertilization during eleven hundred years, has become productive, thickly populated and somewhat attractive. Here we find ten thousand Belgian peasants, occupying a territory twelve miles square, engaged in agriculture, the manufacture of lace and the care of the insane.

Sometime during the seventh century, a beautiful Irish maiden named Dympna, was beloved in an unholy manner by her own father. Being of a chaste and religious temperament, she was so much shocked at the unnatural manifestations of sensual passion in her own parent, that she resolved to escape from his power, by speedy flight. Having obtained the assistance and companionship of a reverend Father named Geburnus, she sought for a place of safety in a secluded part of Belgium. Here, away from the world, she could partially atone for her parent's unholy devices, by devoting her life to good deeds and religious meditations. These were, however, soon disturbed by her wicked father, "who, incited by the devil," found his daughter, and caused her to be beheaded. In dying, she became a Saint, and has since devoted herself to the restoration of those who are mentally afflicted.

The legendary story also informs us, that Geburnus soon died and was buried beside the martyred girl. Hither came the insane from far and near to be healed by the influence of the blessed Saint Dympna. A chapel

was erected, and subsequently a church two hundred and fifty feet in length. The case containing the stones of the coffin of Saint Dympna, is placed near one extremity of the church. The stone floor in the immediate vicinity is perceptibly worn away, by those who have made intercessions to the Saint. Some ancient oaken tablets in carving, suspended upon the walls, represent important scenes in the life of the saint, such as her birth, refusing incest with her father, ministering to sick people, &c., &c. It was formerly the custom to present all newly arrived patients, and the ceremonies performed were as follows. There was a religious offering lasting nine days, during which, the patient was kept in a house near the church, in the charge of two old women. A priest said mass daily and read prayers. Three times during the nine days, it was necessary to make a circuit of the church, and to pass under the case inclosing the Saint's coffin. The procession was made up of the patient or patients, some children and religious devotees. While this was taking place, the relatives remained in the church praying to the Saint to effect a restoration.

Such is the history of Gheel, in its actual and legendary aspects. Whether the want of success has lessened the ardor and faith of those who believed in the beneficent influence of St. Dympna, or whether more enlightened views respecting the nature of insanity have prevailed, it is evidently the fact that only a few of those who are sent to Gheel, at the present day, are subjected to any ceremony at the Church of Saint Amams. New arrivals are now taken to the Asylum, and kept under observation by the Medical Officer and Sisters of Charity, until satisfied respecting their mental condition. This period varies from a few days to several weeks. The Asylum, or Hospital, is not large, but

is well arranged, furnished and attended. Neatness and cleanliness are manifest everywhere. Only eight patients were occupying the building at the date of our visit in July. One hundred can be accommodated. The rule is to send them out to families of the commune as soon as practicable.

The village of Gheel, like all Belgium towns, is substantially built of brick and stone, having narrow paved streets. A small hotel near the public square furnishes accommodations to the few visitors who chance to find their way to this peculiar place. The arrival of the *diligence* daily is an event of sufficient importance to collect a small crowd. At other hours the streets seem deserted, and nothing occurs to disturb the silence of the place. We found a few small shops, at which wooden shoes, pipes and tobacco, and small trinkets could be purchased. Our entrance did not even disturb the slumbers of the female would-be merchant at one of these shops. At the door of one of the houses two women were at work making thread lace; and at another two imbecile boys were sitting on the ground, nodding to the sun which poured down upon their unshaded heads. These and the hotel-keeper were the only people we saw in the streets of Gheel. It seemed like walking about a city of the dead, or a place depopulated by sudden pestilence. The arrival of an American is evidently an unusual event. The landlord exclaimed, "Jesu! four Americans in one day! *Monsieur*, two of your professional countrymen, doubtless your friends, arrived this morning, and are now visiting the hamlets." The man could hardly conceal his astonishment when, later in the day, we, being introduced to the two Spanish gentlemen from Brazil, were unable even to converse with them.

The better class of patients are provided for in the village where the accommodations are good, and these houses are readily shown to visitors. In one of them I found an English gentleman, who had the use of a sitting-room, bed-room and garden, at an expense of thirty-five hundred francs per year, or about fourteen dollars per week. But nearly all of the houses are rigidly plain, and lacking in comforts. The sleeping accommodations are often provided in garrets, lofts, and out-of-the-way nooks and corners. As the patients and peasants all fare alike in this respect, there can be no ground for complaint. The condition of both sane and insane, living in the commune outside the village, can not be described by that expressive word, "comfortable." The hamlets are low, dark and damp; destitute of wooden floors, and covered with thatched roofs. Much discomfort must be endured during the inclement season of the year. Nearly all of the patients labor in the fields with the peasants who board them. During the time of our visit the crops were being harvested, and it was no uncommon thing to see men, women and children working together. The women, as a class, appeared stronger, brawnier, and more muscular than the men. In six different fields we saw women harnessed to carts; in other words, the team was made up of a small cow on one side of the cart-pole, and a woman on the other. The children did most of the raking and binding. All had the old worn look that is produced by overwork and under-feeding. Those who were not barefooted, wore wooden shoes. The farming implements were old and primitive.

The impression made by personally going about among the hamlets was not favorable. It was impossible to resist the feeling that we were among a community of poverty-stricken people, who were struggling,

against fearful odds, for a bare existence. If these appearances are evident in July and August, the pleasantest season of the year at Gheel, how much more manifest would they become during the winter months. Every hamlet contained restraining apparatus, but I saw only three patients wearing mechanical appliances. The landlord informed us that patients were restrained when excited, at the discretion of the people having them in charge; but, as a rule, they had comparative liberty, and constant out-door employment.

Accidents frequently occur, as in other places where the insane are congregated. Several tragedies have marked the history of Gheel; but, as no accurate records are kept, it is impossible to ascertain the comparative liability to serious accidents of this commune, and of other congregations of the insane. The opportunities are certainly much greater—the supervision much less. Reasoning, *a priori*, we should expect disturbances, annoyances, and liability to greater abuses under this system than could possibly occur in a well-regulated institution. The only safeguards are three physicians and a number of "*commissaires des police*," appointed by the government to reside at Gheel, and look after the interests of the insane. They are required to inspect the hamlets, to prevent abuses, and to report such suggestions as are deemed best for the improvement of the commune. They have authority to transfer violent and excitable patients to the regular asylums at Antwerp, Brussels, and elsewhere. Their visits are not regular or systematic, and extend over such a large territory that many of the hamlets are not inspected oftener than once annually, unless a special call is sent to them. Such was the information given to us by an intelligent gentleman, formerly a patient, who acted as our *cicerone*.

In considering the advantages and disadvantages of Gheel, it should be remembered that the Belgian Government has established a number of large asylums or hospitals, some of them quite recently, for the treatment of the insane. It appears to be the policy to send only the quiet chronic cases to Gheel. Doubtless there still remains, in the minds of the ignorant peasants, a faint, flickering belief in the restorative power of Saint Dymphna, but the governmental authorities consider the matter in a practical way only. From their standpoint this colony provides a method of care for the chronic insane at a moderate cost.

I have thus hurriedly described Gheel, as it appeared during the summer of 1878. Few alienists have visited the place, and of these only a half dozen have published anything descriptive of its history and field of usefulness. Esquirol was at Gheel in 1821. He saw those "whose flesh was lacerated by the chains they had worn, and noticed in houses, near the chimneys and the beds, iron rings, with chains attached." In 1848, M. Morel wrote:

"The families that have charge of them (the insane) are for the most part kind and humane, but that they have no method of restraining or securing the violent and furious but by chaining them; and that serious accidents not unfrequently occur; that a short time since the burgomaster was killed by a maniac."

Our eminent *confrère*, Dr. Pliny Earle, visited Gheel in 1849. In his account of the colony he uses the following language:

"Within the town I saw but one patient, in the streets, upon whom there was any restraining apparatus. His waist was encircled with an iron belt, to which his hands were secured by wrist-lets. In the suburbs, and around the farm-houses, however, there were several who were fettered with iron, the chain between the ankles being about eight inches in length. In some cases the

rings about the ankles had abraded the skin and occasioned bad ulcers."

"Of the seventy hospitals, asylums, and other special receptacles, counting Gheel but *one*, which it has fallen to my lot to visit, there are but two at which I saw insane persons in any way personally restrained by heavy chains. These are Gheel, and the Timarhané, at Constantinople. At the latter a man was chained by the neck to the wall. At one of the houses a patient slept in a place which, wherever situated in the building, no New England farmer or mechanic would think fit for the lodging of any of his household, other than the cat or dog; and, as it was, it was too far out of the way even to be thought of for that purpose. It was a low, three cornered opening in the attic, formed by the floor, the slanting roof, and an adjacent room. Ascending a ladder to reach it, the patient was obliged to crawl into it upon all fours, and there he found his bed of straw. The question naturally arises, if, in the comparatively small number of houses that I visited, there was one such dormitory, how many were there in the whole commune?"

In the seventieth report of the Friends' Retreat, near York, Dr. Kitching pays considerable attention to the development of the social life of the insane. Speaking of Gheel he says:

"It is acknowledged by some of the best judges to have failed in producing the benefits anticipated from it. Its failure was inevitable, as plans founded on wrong principles must sooner or later always be. Whilst seeking to avoid the evils of congregation, it ran into the opposite extreme of individual treatment—a mode of treatment the least adapted to many forms of lunacy, even in their chronic stage. The patient can not, in an isolated condition, be supplied with all that he requires, on account of the expense of providing it. The treatment should therefore be an associate treatment. The industrial training which forms a prominent feature in the Gheel plan, can be quite as well carried on in a large lunatic asylum, and in the latter is much less liable to be monotonous, and influenced by sordid motives, than in the cottage of the artisan."

In an article on "Hospital and Cottage Systems," published in the *AMERICAN JOURNAL OF INSANITY*, July, 1870, are the following truthful words:

"Gheel is unique; a warning rather than an example. It had no historical predecessor, and has had no competitor nor imitator for a thousand years. It has answered a purpose for chronic cases amongst a people unwilling of change even by way of improvement, and remarkable for great simplicity of manners and habits of life. It is a cemetery of the living, where from infancy to old age, generation after generation has vegetated and dozed in a hopeless and unambitious monotony, with no other gift or aspiration, except to feed, lodge and care for imbecility, idiocy and senility. The various attempts which have been made to combine that sort of treatment with modern modes, do not warrant repetitions of such experiments."

In 1863, the celebrated Dr. Conolly declared that "the Gheel system is not one he should like to see followed in England."

During the same year, Dr. W. A. F. Browne, one of the Commissioners in Lunacy for Scotland, speaking of Gheel, said: "It afforded the last glimpse of a mediæval condition, incrustated with the stains and corruptions of a worn out organization, where the faith in the supernatural has faded away, and the sun of science had not yet arisen." Dr. Browne also says: "the amount of restraint by camisoles, straps, chains and iron girdles in Gheel is painful and unjustifiable."

In his report to the New York State Board of Charities in 1876, on the management of the chronic insane, Dr. H. B. Wilbur speaks of Gheel in terms of glowing enthusiasm. But in conclusion he uses the following language: "In the United States, we lack the class of families that render the system practicable in Belgium and Scotland." In these few words, Dr Wilbur has justly acknowledged the superiority of the American laboring classes, as well as the defects of this ancient semi-superstitious system. It would be just as impossible to establish an American Gheel, as it would be to adopt the customs and habits of the Belgian peasants.

The world moves; progress has been made and acknowledged. Gheel has served a good purpose for many centuries; but the world will not witness the establishment of another commune patterned after that of Saint Dymphna.

I have thus attempted to sketch, briefly and concisely, the most obvious and prominent features of this celebrated colony. In conclusion, a few of the manifest defects of the system are: the absence of medical care, the confusion of sexes, the extreme poverty of many of the peasants who keep them, the small, poorly ventilated sleeping-rooms, the want of animal food and wholesome diet and the almost unlimited opportunity for the abuse of patients. From personal observation, and from all I have been able to learn respecting Gheel, I believe it may be a tolerable place of residence for the quiet, chronic insane, but it is not a good curative arrangement for those who are excited or violent, or who require medical treatment.

RIB-FRACTURE IN ENGLISH ASYLUMS.

BY W. LAUDER LINDSAY, M. D., F. R. S. E.,

Physician to the Murray Royal Institution for the Insane,
Perth, Scotland.

INTRODUCTION.

The body of the following paper originally appeared in the *Edinburgh Medical Journal* for November, 1870. It is reproduced here and now, in connection with various papers already published on *restraint and non-restraint*,* because rib-fracture is one of the natural fruits of the *non-use of mechanical restraint*, in cases in which it should be applied. So far from its having become less, rib-fracture has become more and more common since 1870 in the lunatic asylums of England. So common is it now-a-days, that sensation articles regarding it, every now and then appear in the newspapers, in connection with the reports of coroner's inquests.† It is customary carefully to examine every entrant patient, in order to discover any broken bones that might be assigned to the period of the patient's treatment at home, or in a workhouse, or in a police cell; and even more careful examinations at each *post mortem*, in order to detect fractures that must or may have existed dur-

* *Vide* the AMERICAN JOURNAL OF INSANITY for April and October, 1878, pp. 517 and 272, and April, 1879, p. 548.

† Important commentaries are also, however, occasionally to be met with in medical journals, as in the Cambewell House cases (London), of 1876, which formed the text of an instructive article on the "Alleged Ill-treatment" of lunatics, in the *British Medical Journal* for August 19, 1876, p. 247.

ing life, whether or not they produced suffering or disease of any kind.*

I should be very sorry to say that *all* rib-fractures or other bone fractures found in asylum patients, are necessarily the fruits of ill-usage by attendants. One main object of the present paper is (on the contrary) to show how apt such injuries are to occur without anything approaching to violence or even to roughness on the part of attendants, or of fellow-patients. But it is all the more necessary that certain classes of patients should be guarded against risk of accident, from falls, for instance, by the use of such appliances as the "protection-bed."† It can be no matter of surprise that certain general paralytics and other restless and mischievous, but feeble patients, when left to knock themselves about "padded rooms," or subjected to what is called "manual"‡ restraint, the repressive *force* § of muscular attendants, should meet with serious "accidents" of divers kinds. It would be very strange if, under such favorable conditions, rib-fracture and numerous other injuries, major and minor, including death itself, should not, and too frequently occur.

*The Twenty-third Report of the English Lunacy Commissioners, (for 1869), regrets a number of cases of rib-fracture, whose origin or cause was never ascertained; along with many other "accidents" that were obviously or apparently the result of non-restraint, literal or figurative. Such Blue-Books, indeed, furnish an eloquent commentary on the *evils of non-restraint*.

†Vide the AMERICAN JOURNAL OF INSANITY, for April, 1878, p. 517.

‡Dr. Mortimer Granville, of London, in his evidence before the Dillwyn Committee of 1877, contrasts this form of restraint unfavorably with that which is "mechanical." [Report of said Committee, p. 400.]

§"You *must* have *force* in certain cases," says even Lord Shaftesbury, who admits that mechanical restraint has been replaced "by the *personal force* used by the keeper. * * * * To control a violent patient it requires three or four attendants. * * * * There is nothing on the face of the earth one-half so provoking as a madman when he chooses to be so!" [Report of the Dillwyn Committee, 1877, p. 543.]

Nevertheless, it does not appear to occur to our lunacy authorities to connect *preventible* injury with the non-use in proper cases of mechanical restraint, or with the gross abuse of what they still complacently describe as "the non-restraint system."* The sense of moral responsibility seems to sit lightly on their shoulders, for preventible accidents to their charges, as it does, for the "manufacture of insanity" itself—a subject sufficiently serious, however, to require an article to itself.

And yet these authorities go on calmly reporting such injuries as the following: "The casualty was the death of a man from pleurisy, following broken ribs. The injury occurred in a struggle with an attendant, whom the patient had suddenly attacked."† "A woman was in bed with a fractured arm, which seems to have been caused by her violent resistance when required to take medicine."‡ Well might an indignant critic exclaim: "Patients may have their ribs crushed, be boiled, or commit suicide, before a moderate and reasonable sum is expended upon sufficient and skillful attention;" and he makes this comment *apropos* of the following statements of fact taken from the Twenty-fourth Report of English Lunacy Commissioners (for 1870). In the Witham Asylum, a patient was found by the Commis-

* It may be carrying this benevolent "system" to its logical conclusion. Though this conclusion is fraught with serious social evils—when, for instance, it fails to regulate properly the moral relations of the sexes among the higher classes of asylum officers, or of their subordinates to their patients, when it permits patients to escape wholesale, so as to get themselves into the gutters, or worse, of our large towns, or battered to pieces by railway trains, or drowned like rats in reservoirs, wells or streams; or when it gives them license to write and to post numbers of the most mischievous letters.

† Thirty-second Report of the English Lunacy Commissioners (1878, p. 258): Entry relating to the Sussex County Asylum.

‡ *Ibid.*, p. 235, entry relating to the Shropshire Asylum.

sioners, "lying on a bench in an open rustic seat, restrained by a *strait-waistcoat*, restlessly moving and moaning, and *unattended* by anyone;" while at Ticeburst, one of the highest-class private asylums in England, "The nurses had a practice of restraining the lady patients, at night-time, by fastening them to the bedstead, tying their feet together!"*

The *Pall Mall Gazette*, of October, 1869, thus refers to a series of broken-rib cases that had occurred in the public asylums of Hanwell, Lancaster, and Carmarthen:† "One may say that there was hardly a rib in their bodies left unbroken. * * * There seems to be little doubt that this particular kind of injury is the consequence of the attendants kneeling on the chests of refractory patients, in order to make them submit to discipline. * * * Surely this kind of thing can not be endured much longer. For a strong, heavy man to kneel upon a helpless patient * * is, no doubt, an easy way of reducing him to order; yet it is clearly one which can not be practiced with impunity." Specially, in connection with the fatal cases of rib-fracture at Hanwell, it is asserted: "Either * * the non-restraint system is a mere *sham and delusion*, or it yields results quite as horrible, and distinguished by the same monotonous cruelty as existed under the old regime, when mechanical restraint was used."‡ Referring to "the

* "A Social Blot," in *British Medical Journal*, October 22, 1870, pp. 441-2, with commentary in the *Journal of Mental Science*, vol. xvii, 1872, p. 230.

† The editor of the *Journal of Mental Science* tells us, (vol. xvi, 1871, p. 65), of "The Public Asylums of England and Wales," that "in *none of them* is mechanical restraint used, and yet the accidents and injuries to patients might be counted by single figures!"

‡ The editor of the *Journal of Mental Science*, in his own polished and charitable phraseology, accuses the writer of such a statement of "either *gross ignorance*, and therefore incredible *impertinence*, or a singular *contempt of truth*," (vol. xvi, p. 64), a compliment similar to that paid to his fellow physicians by another "non-restraint apostle in the Dillwyn Report of 1877, p. 124.

number of those who have been knelt upon, and literally crushed to death, in order to show the advantages of physical* over mechanical restraint, the public critic sums up that "the non-restraint system, as it is conducted in some asylums, seems to us worse than nothing."†

To show that this critic, notwithstanding the abuse heaped upon him by the editor of the *Journal of Mental Science*, does not stand alone in his opinions, here are the remarks of another medical commentator—writing this time in the *Lancet*, another of the leading English medical journals. His test is the Santi Nistri case, at Hanwell—a general paralytic, "who died there, after a fortnight, from the effects of frightful injuries received in the Asylum." These injuries were, "that the breast-bone was broken; that the third, fourth, sixth and seventh right ribs, and the fourth, fifth, sixth and seventh left ribs were also broken; that the chest was bruised; and that the left eye was very black and lacerated. * * * It is sufficiently plain that, however the event may have happened, the poor fellow was effectually *crushed to death*. * * * We are driven, indeed, by a study of the evidence, to one of two equally painful conclusions: either that the supervision and care of patients in the Hanwell Asylum are so

* The record of a suggestive inquiry by the English Lunacy Commissioners, into the causes of the death, in the Carmarthen Asylum, of Reed Price, is given at full length in their 24th Report, (1870, pp. 227-235). The evidence showed that the said patient died from pleurisy, associated with the fracture of eight ribs, these fatal injuries being caused in and by a struggle with an attendant.

† The whole article is quoted in the *Journal of Mental Science*, vol. xvi, 1871, pp. 60-70, on whose editor it produced the effect that a red rag is said to do upon a bull. He denounces the writer of the Pall Mall article as having "preferred seemingly to lend a willing ear to the malignant whisperings of some reactionary individual, who has failed to appreciate the spirit of the modern system of treating the insane, and who, if he be connected with an asylum, is manifestly most unfitted for the office which he holds." (P. 67).

grossly defective that injuries such as Santi Nistri died of, may be inflicted without anyone knowing anything about the manner of their infliction, or that there has been a conspiracy of silence. * * * Santi Nistri's death is, unhappily, not a solitary instance;* other patients have died in the Hanwell Asylum from the effects of similar severe injuries. * * * We are aware that the Hanwell Asylum is not considered a good example of a public asylum, and that some even regard it as the opprobrium of our county asylums."†

Men are to be found in England who do not think broken ribs a very serious matter—who would, at least, rather submit to them—or, what is not quite the same thing, subject their patients to them—than have a vestige of mechanical restraint applied in prevention of such injuries. The editor of the *Journal of Mental Science*‡ declares that, "were such injuries as broken ribs, in the proportion of cases in which they now occur, a necessary part of the non-restraint system, which we by no means believe them to be, we should still maintain that it would be better to accept them as an evil incidental to a good system than to return to the old system."

Dr. Harrington Tuke, who is ostensibly like Dr. Lockhart Robertson, a staunch adherent of the "non-restraint system," confesses that "the only wonder is, that in public asylums, considering the savage nature of some of the half-educated victims of mental diseases, and the *liberty* which the non-restraint system allows

* Further comments on the Hanwell and Carmarthen broken rib cases are to be found in vol. xvi, 1871, pp. 251-5.

† Quoted in full in the *Journal of Mental Science*, vol. xv, 1870, pp. 566-7.

‡ Vol. xvi, 1871, p. 66.

them, *accidents* do not more frequently happen. That, within the last few years, several superintendents, and *many* attendants, have been *seriously hurt*, would show there are two sides to this question. The fact is, that in the refractory wards of our public asylums, the attendants, too few in number, *carry their lives in their hands*.* In other words, as I understand Dr. Tuke, the "non-restraint system"—that is, the non-use of mechanical restraint, under any circumstances, is a *dangerous* system—dangerous equally to the lives of patients, officers and attendants!

Dr. Tuke's views, however, concerning the "liberty of the subject," in the treatment of the insane, are peculiar; for he says: "I think that taking a patient, and locking him into a room, is simply committing an *assault* that you have *no right* to commit, unless on the very best possible reasons—reasons very grave; for if that remedy will do any good, he may be said not to be in a state fit to be sent to an asylum." Nevertheless, he would, under certain circumstances, "*seclude the patient with the attendant*." The seclusion, in that manner, is as curative, if properly carried out, as it well can be!"+ He holds, however, that facts warn us that all violence must be "avoided, and that, in addition to the care and gentleness required in the treatment of the insane, we have a new reason for caution in the *danger* that seems imminent of easily fracturing the more exposed bones."‡

Dr. Blandford, in his excellent manual of "Insanity, and its Treatment," (1871, p. 226), speaking of acute mania, says: "The patient will not lie quietly on a

* *Journal of Mental Science*, vol. xvi, p. 141.

† *Journal of Mental Science*, vol. xviii, 1873, p. 405.

‡ *Ibid*, vol. xix, 1874, p. 162.

bedstead, and attempts to compel him to do so will end in many bruises, if not in *broken ribs*.”*

I venture to offer the following cases, and the relative commentaries thereon, as a contribution towards a better knowledge of a subject that has lately attracted a good deal of attention, both public and professional, in England, in consequence of the animadversions of the press on various instances of *rib-fracture* among the inmates of its county lunatic asylums. The subject to which I refer includes, on the one hand, a consideration of that unnatural fragility of bones, which renders them liable to fracture from the most trivial causes; and, on the other, of the frequency of rib-fracture that cannot possibly be attributed to ill-usage by attendants.

I do not offer my remarks apologetically; for I believe that the animadversions above referred to are unwarranted either by evidence or legitimate inference—at least, in the majority of cases. Nor am I to be understood as affirming that fragility of the bony system is peculiar to the insane; though I believe it is much more common among them than is usually supposed. Whether it is as common as, or commoner than it is among the sane, remains to be proved. This is a subject that seems to me deserving of full and immediate inquiry. I have repeatedly stated† that I have never met with, or heard of, any lesion among the insane that

* Instances of the frequency and readiness with which bone-fracture occurs in asylum patients, are to be found in (I.) A “Chapter on Broken Bones,” by Dr. Rogers, of the Lancashire Asylum at Rainhill, and one of the ex-presidents of the Medico-Psychological Association, in the *Journal of Mental Science*, for 1875, (vol. xx, p. 81). (II.) A paper on “General Paralysis and Fragilitas Ossium” by the late Dr. Mercer, of the East Riding Asylum, Yorkshire, in the *British Medical Journal*, vol. L, 1874, p. 540.

† Vide “Illustrations of Pathology and Morbid Anatomy in the Insane,” *Journal of Mental Science*, vol. xii, p. 522; and the following Reports of the Murray Royal Institution—80th, pp. 15, 16; 82d, p. 15; and 88th, p. 15.

is to be considered *quite peculiar to them*, and in this sense to be regarded as diagnostic of the existence of insanity. It is wonderful, however, how persistent and ingenious are the efforts of alienists to make out an essential or specific difference between sanity and insanity, the sane and insane, as regards their pathology and morbid anatomy, in the face of incessant and egregious failures. The "thin partitions" that are supposed to separate them, and that also "do the bounds divide" between great wit and madness, are not real or perceptible—not demonstrable or definable; and all efforts artificially to create specific distinctions where Nature has none, *must* end only in failure!

I do not necessarily connect fragility of the bones in the insane with the accidents that have of late years been made the subject of sensational, and, I believe, most ungenerous and unjust outcry by the fourth estate. There *may* have been, in some cases, an essential connexion between osseous fragility and rib-fracture, as cause and effect; but the effort to prove or disprove such a connexion in the cases referred to, is no part of my present object, which is simply—so far as regards,

I. *Mollities ossium* in the insane, to show that it sometimes exists in as marked a degree as among the sane; and as bearing on—

II. *Rib-fracture* in the insane to point out (a) The frequency of self-injury. (b) The very slight violence sometimes required for rib-fracture. (c) The existence of serious or fatal surgical injury without external marks, or any relative symptoms. (d) The importance of post-mortem examination in the detection of masked or unsuspected injury. (e) The desirability of distinguishing from each other* injuries that are—1, acci-

* *Vide* 32d Report of the Murray Institution, p. 11.

dental; 2, self-inflicted; and 3, the result of maltreatment by attendants. (*f*) the injustice of attributing rib-fractures and similar injuries necessarily to attendants. (*g*) The frequency of such injuries as a necessary consequence of the non-use of mechanical restraint. (*h*) Those who are responsible for the frequency of such injuries are, therefore, those who have advocated the *non-restraint dogma*. (*i*) There are *no* pathological lesions peculiar to insanity.

I. *Case of Mollities Ossium*.—The patient was an unmarried lady, aged forty-nine, eminently nervous in temperament, of fine build of body, and of high delicacy of constitution, with a strumous tendency. For a long series of years she had been the subject of chronic insanity. In the last seven years of her life, during which she was under my observation, her general health was fair, till she began to complain of aching pains in the bones, of a character supposed to be rheumatic. There gradually supervened a marked general debility, requiring rest in bed, to which she was confined for the remainder of her life—a very few weeks. While bedridden, boils appeared on different parts of the body; then acute tuberculosis suddenly showed itself, and rapidly proved fatal (in a fortnight.) A post-mortem examination was made, which revealed, besides infiltration of the lungs with miliary tubercle, and slight fatty degeneration of the kidneys, as well as other pathological lesions, the following condition of the *bones*. The walls of all bones were thin and soft, easily pierced by any steel or other hard instrument. The normal medullary (or cancellated) tissue was absent; the interior of the bones being occupied by a thickish fluid, which consisted apparently equally of blood and oil. Their surface was abnormally vascular and colored—usually a deep reddish-brown. The

sternum was so flexible that it could be doubled on itself without much difficulty. The general condition of the whole bones of the system was that usually described as the earlier stage of *mollities ossium*; it was apparently essentially a hyperæmia, followed or accompanied by *fatty degeneration*, of their whole texture and contents.

For some time prior to her decease the *urine* had been highly *phosphatic*, but non-albuminous. It does not, however, follow that this apparent excessive excretion of phosphates stood directly related to the condition of the bones. For, on the one hand, as Neubauer and Vogel point out, mere *sediments* of earthy phosphates in the urine do not necessarily indicate *excess* of these salts—absolute excess being determinable only by quantitative analysis;* and, on the other, as I have elsewhere shown, phosphatic urine is common among the insane,† while there is no reason to regard *mollities ossium* as otherwise than rare (comparatively) among either sane or insane. According to some writers the excretion of phosphates, as measured by the phosphatic character of the urine, bears a specific relation to certain forms or phases of mental disease, (*e. g.* mania); but I long ago pointed out that this is a fallacy, and my experience has been confirmed (apparently) by the later researches of Dr. Adam Addison, sometime of Larbert. He writes: “The quantity of phosphoric acid excreted in states of mental excitement was *less* than after convalescence. * * * This perhaps is the most important fact elicited by the investigation, for a greater than the average secretion of the phos-

*“Guide to the Analysis of the Urine.” Translated for the New Sydenham Society, 1863, p. 331.

†“On the Chemistry and Microscopy of the Urine in the Insane,” *Journal of Psychological Medicine*, July, 1856, pp. 492, 496; and 30th Annual Report of the Murray Royal Institution, p. 16.

phates has come to be regarded as a pathognomonic phenomenon of maniacal excitement." (P. 15.) * * * "I consider it sufficiently proved that the quantity of phosphoric acid excreted during the course of a maniacal attack, is *less* than that voided in an equal time after recovery." (P. 16.) * * * "I believe that the excretion of phosphoric acid is regulated more by the condition and weight of the *body* than by the action of the *brain*." (P. 27).*

In the foregoing case (I.) there was no fracture of any of the affected bones; but it is obvious that they were in a condition in which some very trivial cause might have caused fracture. Druitt tells us, in his admirable "Surgeon's Vade-Mecum," that in *mollities ossium*, "from a fall or some other *slight injury*," the bones are liable to break; or that "bone after bone breaks from the *slightest cause*," (1851, p. 217). Even in the earlier stages of the degeneration, and still more so in the later ones—slight stumbles in one's own bedroom—falls against the edges of beds, chairs, or tables during the night—or even ordinary, and still more so inordinate or unusual, muscular effort—may suffice to produce rib-fracture!

The morbid condition of the whole bony skeleton in this case was quite unsuspected during life; it was detected, and could only have been detected, by post-mortem examination. Such cases furnish one of many sorts of argument that might be adduced in favor of such examinations in *every* death from insanity.† I have elsewhere pointed out that autopsy frequently reveals the most unexpected pathological lesions of the most interesting kind—though not necessarily interest-

*"On the Urine of the Insane." Reprint from the *British and Foreign Medico-Chirurgical Review*, April, 1865.

† *Vide* 89th Report of the Murray Royal Institution, p. 18.

ing as throwing light on, or essentially connected with, the *mental* or cerebral disease. Autopsy in the insane is, however, one of these subjects, on the other hand, regarding which it may prove that "ignorance is bliss," and "'tis folly to be wise;" for it, and it alone, may bring to light injuries or lesions, the origin or cause of which may become subject of judicial inquiry, newspaper outcry, and public condemnation! The frequency with which previously unsuspected rib-fracture is detected by post-mortem examination may be illustrated by the following:

II. *Cases of Rib-Fracture detected only on Post-mortem Examination*, which occurred in the practice of Dr. Workman, formerly of the Provincial Lunatic Asylum for Upper Canada, at Toronto—a gentleman who is distinguished among American alienists for the attention he has devoted to morbid anatomy, as well as for the manly frankness with which he expresses his opinions.

A. A male, æt. 52, "of large size," suffering from general paralysis, his insanity being characterized by "great restlessness and violence." During life he "neither admitted that he suffered any pain, nor gave any indication of so doing." Death arose apparently from "cerebral compression." At the post-mortem examination attention was, therefore, directed mainly to the *brain*. "After I left the dead-room, believing I had seen *all* that the case afforded, my assistants proceeded to examine the rest of the body. * * * They were surprised to find pus diffused beneath the muscles on the left side '(of the thorax),' and fractures of five ribs running in a vertical straight line a short distance from the junctions with the cartilaginous portions. No reunion had taken place. * * * There was no rea-

son to doubt that the fractures of the ribs had taken place *before* the patient's arrival at the asylum. The rectilinear course of the fractures appeared to indicate that they had resulted from a *fall* forward on some hard, narrow surface, such as the edge of a board or plank. The account given as to his violence and restlessness corroborated the supposition. This patient not only appeared perfectly free from pain or muscular impairment up to the period when symptoms of cerebral or cerebro-spinal compression showed themselves, * * but he preached and shouted perpetually.”*

B. A male, æt. 33, “furious and dangerous; * * restless, noisy and destructive” on admission, but subsequently became quiet and harmless. During life he complained of no pain, and had no cough. Immediate cause of death was, nevertheless, hydrothorax. Post-mortem examination revealed the fracture of seven ribs, the appearances proving that the fractures here also had occurred *prior to admission*.

In neither of these cases was any lesion of the *ribs* either diagnosed or suspected during life. “Neither of the two would have been known without post-mortem examination.” These and similar cases also illustrate the fact that—

1. *Surgical injuries sometimes occur among the insane without external marks of violence;†* and that—

2. *Serious organic lesions frequently exist without relative symptoms during life.‡*

*Report of the Provincial Lunatic Asylum, Toronto, for 1862, pp. 13-15. The same case is also reported in the AMERICAN JOURNAL OF INSANITY, for April, 1862, and *Journal of Mental Science*, vol. viii, p. 585. It is there stated, in addition, that the patient was “tall and powerful,” and that the “fractures ranged in a straight line, as if all caused by one blow; or, most probably, by a fall on some hard-edged substance.”

† *Vide* 34th Report of the Murray Royal Institution, p. 33.

‡ *Vide* 31st Report, p. 13; and 34th Report, p. 36, of the Murray Royal Institution.

None but those habitually engaged in the management of lunatics can be aware of the extent to which accidental or self-inflicted injuries occur, or of the exceptional character of these injuries. They are exceptional in so far as it is (1) frequently difficult to understand how they *could* have been inflicted (I refer to cases in which ill-usage by attendants has been impossible); and (2) in so far as serious structural lesions may be developed without the usual accompanying or proportionate physical indication, or without vital symptoms of any kind. Thus, I have known almost all the ribs of a young man's side broken without a single *outward* indication, or the exhibition of any kind of *symptom*. No complaint ever emanated from the patient; there was no bruise-mark, no lung-symptom, no indication of the slightest suffering from first to last. Nor was it ever discovered how the injury was inflicted. The fractures were detected accidentally by manual palpation. The patient was confined to bed for some days, his thorax tightly swathed in flannel merely as a precautionary measure; but no chest or other symptoms were ever developed, and the patient never could comprehend why he was confined to bed and swathed in flannel!

It is not surprising that, from ignorance of such facts, mere surgical experts, unacquainted with the peculiarities of injury or disease in the insane, should occasionally express, in courts of law, opinions that are calculated to do great injustice to the attendants of lunatic asylums. Dr. Workman is very severe, though not too severe, on certain recent exhibitions of this kind in London. Thus, he says, "It has been incontestably proved that lunatics afflicted with general paralysis, or with other forms of intense cerebral disease, may sustain severe and extensive osseous or other lesions, without manifesting the slightest perception of pain or impairment

of muscular activity." Nevertheless, "in one of the English cases, * * * * two surgeons gave testimony to the effect that no person having two or more fractured ribs *could* be free from pain, or freely use the costal or other respiratory muscles! *Ne sutor ultra crepidam!* Before delivering opinion on any question relating to insanity, or to the insane, medical practitioners would do well to acquaint themselves with the subject on which they are to testify."* * * * *

"Eminent medical gentlemen who have not spent their lives in the practical study of insanity, would act very prudently in abstaining from rash deliverances in all questions (relating to the malady) in which they find themselves in antagonism with those better qualified to give a correct opinion." Until the peculiarities of accident and disease, among the insane, are generally recognized, and until juries cease to be guided by the opinions of experts, who are not qualified to give opinions of any real value, "how can we hope (as alienists) to protect ourselves from the fallacies of their testimony, whether before the tribunals of justice, or the more terrible ordeal of public judgment—a court whose revisions of error hardly ever come in time to reinstate its victims in the position of innocent, much less of meritorious men?"† I quite agree with Dr. Workman as to the little value to be attached to the opinions, as applied to the insane, of surgeons in ordinary practice, who are unacquainted, by personal experience, with the peculiarities of surgical injuries in lunatics. Having myself had frequent occasion to hold consultations with surgical practitioners, in cases presenting surgical difficulty in my own practice, I have found their opinions too often not only useless, but absurd;

* Toronto Asylum Report, 1862, pp. 14, 15.

† *Journal of Mental Science*, vol. viii, pp. 582-584.

because the procedure or appliances that are proper in the case of a quiet, sane patient, who co-operates with his surgeon in the efforts made for his recovery, are not equally applicable—indeed, are sometimes singularly *inapplicable*, in that of a violent, restless, destructive maniac, who applies all his strength, perseverance and ingenuity to thwart the procedure intended for his benefit!

The two preceding classes of cases refer to the *non-detection*, during life, of rib-fracture, or of the osseous fragility on which such fracture may depend; but there is another interesting group of—

III. *Cases of Rib-Fracture detected on admission into Lunatic Asylums*, in which the discovery of such injuries is due to the medical examination of entrant patients that is now generally made in lunatic asylums in all parts of the world. There are few asylum physicians, of any experience, who have not met with instructive cases of this kind,* and who are not quite alive to the policy of making such entrance examinations, in order to guard themselves or their subordinates against the accusations that are sure to be made in the event of the discovery, *subsequent to admission*, of such injuries as rib-fracture. Some instructive instances of rib-fracture, so detected, are given in the Annual Reports of the New York State Lunatic Asylum, at Utica. Thus, Dr. Gray, who is Physician-in-chief of the said Asylum, as well as Editor-in-chief of the AMERICAN JOURNAL OF INSANITY, reports, among the admissions of a single year, one case of fractured clavicle; one of fractured ribs and sternum; and one of fracture of the arm—all in acute mania. He adds the important particulars that, in no case, were these injuries produced

* *Vide* 32d Report of the Murray Royal Institution, p. 10.

by intentional violence; or, in other words, they were not attributable to mal-usage by attendants, but to accident or self-inflicted injury. In no case did the patient complain of pain or injury; the fact of bone-fracture existing at all being unsuspected, either by patients or friends, till the medical examination was made by the asylum physicians. "The person who had fractured clavicle was very wild and boisterous, and moved his arm in every direction; complained of no pain, and challenged those about him to fight. The first day we were unable to bandage him; and, even after we succeeded in this, he tore off the bandages, and tore up his clothing and bedding; *notwithstanding which*, the bone united in the usual period, and without any unfavorable symptoms."*

In another year, he describes the following two cases:—"One had, in jumping from a window at home, under delusions, fractured his sternum and clavicle, and driven down his neck into his chest, pushing out the upper portion of chest and vertebral column so as to shorten himself about two inches."† The other was a male, æt. 53, admitted in a state of high maniacal excitement (restless and noisy). There were bruise-marks on the chest, and emphysema was rapidly developed. Rib-fracture was suspected, but proper examination of the thorax was rendered impossible on account of his restlessness. He died from hydrothorax. The post-mortem examination proved the correctness of the diagnosis as to rib-fracture, there being five ribs fractured on one side and four on the other—the sternum also being fractured.‡

Such cases as the foregoing show how unjust and absurd it is to ascribe all rib-fracture, in the inmates of

* 20th Report (for 1862), p. 15.

† 27th Utica Asylum Reports, (for 1869), p. 15.

‡ 27th, (for 1869), *ibid*, p. 77.

lunatic asylums, to deliberate *violence by attendants*. I believe that, as a body, asylum attendants lie under most unmerited opprobrium for supposed brutality or roughness in the management of their charges—especially of such as are unusually troublesome, by reason of filthy habits, insubordination, assault, destructiveness, mischief or otherwise. Attendants would not be human, did they not occasionally lose their temper or self-command, and allow themselves to be irritated into acts which they very speedily regret, and for which they have frequently most inadequately to atone. But, even in the exceptional cases in which faults of commission do occur, far too little allowance is made for the provocations to which attendants are subjected. My own experience has led me, on the whole, to be equally surprised and gratified at the forbearance and kindness they exhibit—a forbearance and self-control infinitely greater than that which is sometimes exhibited by their superiors in office, notwithstanding the profession by the latter—*usque ad nauseam* sometimes—that *their* rule of practice in dealing with lunatics is that combination of all the virtues embraced in the “Law of Kindness” as embodied in the “Non-Restraint System.”

Rib-fracture may legitimately be regarded as one of the many fruits of the *non-use of mechanical restraint* in cases where it is really required. There can be no doubt that many cases of rib-fracture would never have occurred had the “camisole” or the old “strait-waist-coat” been timeously employed, or had any other efficient means been used to confine the arms, legs or body.* Since, however, the Conollyan era in the history of Hanwell, it has been deemed culpable in this country to make use of this or other simple *mechanical*

* *Vide* 37th Report of the Murray Royal Institution, p. 12.

means of preventing self-injury, or injury to others.* There is, and there has long reigned in England a *tyranny of public opinion* on the subject of non-restraint in the treatment of the insane—a tyranny which, among other bad effects, prevents the Superintendents of its asylums from acting upon their individual judgment, in individual cases, as regards the imposition of mechanical restraint.† The substitution of *personal* for mechanical restraint—restraint by *attendants* instead of by mechanical appliances—has led to incessant personal struggles, during which it would have been strange had rib-fracture not occasionally occurred in common with other injuries of even a more serious character. The terrorism which is in England exerted on asylum authorities by the bugbear of public opinion, the anathemas of the fourth estate, and the censorship of the Board of Lunacy, is a very real one‡—in the eyes,

* *Vide* 39th Report (1865–8,) p. 15.

† *Vide* Dr. Kellogg, of the New York State Asylum, at Utica, in his Notes of a Visit to the Asylums of Europe: AMERICAN JOURNAL OF INSANITY, for January, 1869.

‡ That it is real, is admitted by those of the English alienists themselves who are manly enough to speak out—on a subject on which I have found them more given to whisper with bated breath, as if it were treason even to harbor aspirations or opinions contrary to that worst of all tyrants or despots—public opinion! One English asylum physician, writing me in 1869, says: "I quite agree with your remarks about the *terrorism* that the Lunacy Commissioners exercise in England. *All independence* is really extinct now in this department" (lunacy practice). Another, in 1870, remarks:—"In the present state of feeling on the subject of restraint and cruelty in asylums, one can scarcely be too much of a *coward* if he would avoid imputations, whose groundlessness is only equaled by their ridiculousness. * * * * On the head of what might be called the *restraint system* as applied to medical men," (engaged in lunacy practice) "see the correspondence between Dr. Sheppard and the Commissioners in Lunacy, and you will easily understand how difficult it is when there is so much spurious sentiment abroad, to avail one's self of a useful means of treatment, or of the exercise of a little native discretion!"

especially of strangers, who can contrast it with the manly independence that exists on the same subject, as regards both action and opinion, in America! England boasts of being (as regards the treatment of its insane) the country of non-restraint; but it will repudiate, I do not doubt, the addition, that it is equally entitled to the designation of the country of fractured ribs; and it will, I dare say, indignantly deny that there can be any proper connection between the non-use of mechanical contrivances against self-injury, or against the provocation of attendants beyond the bounds of their self-command, and the frequency of rib-fracture, in common with many minor or major injuries.

Nevertheless, I believe that, in relation to the causation of such injuries, we must regard, as the *real offenders*, not the poor defenseless attendants, who are at present saddled with the whole of the guilt; but the following categories of persons or institutions, viz:—

1. Such men as Conolly and Gardiner Hill, who have promulgated the absurd and mischievous dogma, that in *all* cases mechanical restraint is unnecessary and improper.*

2. All who have adopted this dogma of *non-restraint*; all who have imbibed the extreme views of Conolly and Hill, constituting these views their creed *quoad* the management of the insane; including especially—

(a.) The general public.

* "The Entire Abolition of Mechanical Restraint in the Treatment of the Insane," is the title of a volume published by Dr. Gardiner Hill in 1857 (London), which contains the following enunciation of his views:—"Restraint is *never* necessary, *never* justifiable, and *always* injurious in *all* cases of lunacy whatever!" (p. 52.) Now Conolly professes to have followed Hill, and the school which Conolly may be said to have founded thus adopts as its creed a proposition, which is (to say the least of it) much too sweeping and dogmatic.

- (b.) The general newspaper press, with certain exceptions.
- (c.) A section, at least of the medical press, such as the *Journal of Mental Science** and the *Lancet*.†
- (d.) The Boards of Lunacy.

I do not, however, further enter at present upon this subject, referring simply to what has been already said on "The Theory and Practice of Non-restraint in the treatment of the Insane,"‡ in the AMERICAN JOURNAL OF INSANITY for October, 1878.

* The narrow views of the latter on this subject are in marked contrast to the more liberal and enlightened ideas of its predecessor and rival,—the *Journal of Psychological Medicine*, as edited by the late Dr. Forbes Winslow.

† In favorable contrast are the views of the *Medical Times and Gazette*, as expressed (*e.g.*) in vol. ii, for 1868, p. 365; and in vol. i, for 1869, p. 254."

‡ Meanwhile my views regarding the *Dis-use of Mechanical Restraint*, and the substitution for it of *Restraint by Attendants*, may be found expressed in (1.) the 11th Report of the Board of Lunacy for Scotland, Appendix, pp. 270 and 272. (2.) The following Reports of the Murray Royal Institution: 39th, p. 15; 37th, p. 12; 32d, p. 18. (3.) The following separate papers: (a.) on "Temporary Insanity," *Edin. Medical Journal*, vol. xi, (1865), p. 449. (b.) On "Typhomania," *Edin. Medical Journal*, vol. xiv, (1868), p. 383.

UREA AND PHOSPHORIC ACID IN THE URINE IN ANÆMIA.

BY THEODORE DEECKE.

The amount of urea excreted by the kidneys stands, as careful observations have shown, in a certain relation to the quality and the quantity of food consumed. Its elimination is also influenced, to some degree, by the occupation or the physical and mental exertion of the individual. It varies greatly from the normal average in diseased conditions of the organism, especially where there is a rapid disintegration of the tissues of the body and of the constituents of the blood.

In the healthy adult the amount of nitrogen contained in the urea excreted, can be considered as almost exactly equal to that contained in the nourishing material absorbed by the system. The amount of urea eliminated is, therefore, a most valuable indicator of the general change of matter in the nitrogenous constituents of the organism.

Another important factor in the composition of the urine is the amount of phosphorus which it contains, in the form of alkaline and earthy phosphates. Regarding the alkaline phosphates, it has become apparent that there exists a special relation between the quantity of these in the urine, and the amount of change of matter in the nervous tissue, which is distinguished by the large proportion of phosphorus contained in easily decomposable compounds. The amount of earthy phosphates is of interest, in its relation to certain pathological processes. These are the calcareous infiltration, or the calcification of physiological and patho-

logical tissues; the depositions of earthy phosphates in cystic cavities, of morbid origin, in various organs of the body; the formation of concretions in the urinary passages and of crystalline deposits in the urine, the latter especially in chronic affections of the bladder.

The history of the formation of urea in the organism, and the seat of its development, can not yet be given in detail. From a chemical point of view the possibility must be admitted, that it has more than one source of derivation. The fact that it is a constant constituent of the blood, that it is found in the chyle, in the serous fluids, in the saliva, and also in various organs and tissues, renders it more than probable that it is not the product of one special organ of the body. It must rather be considered, like its allies, especially the uric acid and the kreatinin, as the general result of the dissociation of certain groups of living albuminous compounds. We add to this that urea possesses the power of dialyzing through animal membranes with great facility, that it acts, when introduced into the system, as a powerful diuretic, and that it is rapidly re-excreted by the kidneys, especially when injected into the blood. From all this it would appear that it is not so much the physiological function of the renal epithelium to produce, but merely to eliminate, or to withdraw this substance from the blood.

The small amount of urea uniformly present in the blood—from two to four parts in ten thousand—and the larger proportion in the arterial, than in the venous blood of the kidneys, offers no argument against this theory, as it has been shown by calculation that it is possible for the whole amount of urea, excreted in a given time, to have been separated from the blood passed during the same time through the kidneys. Moreover, it has been proven by experiment that the

urine is secreted continuously, and that its flow never ceases in health for any length of time. Another argument may be found in the fact that the amount of urea is, in general, independent of the quantity of urine excreted.

The amount of urea eliminated by an average man, in twenty-four hours, is, according to Dr. E. Smith, 33.63 grammes, the daily average in the course of a year; after Parkes, 33.18 grammes; after my own observations, 31.95 grammes in one case, and 34.59 grammes in another case, which gives an average of 33.27. The average amount of phosphoric acid excreted during the same period was, after Parkes, 3.164 grammes; after my own observations, 3.62 in the one, and 2.77 grammes in the other case, an average of 3.195. The variations in the daily amount of urea, in Dr. Smith's case, was from 14.2 grammes to 45.3 grammes; of phosphoric acid, after Parkes, from 2 to 4.3 grammes. According to my analyses, comprising the time of ten days, the variations in the daily quantity of urea amounted to from 27.34 grammes to 41.74 grammes; of phosphoric acid, from 2.17 to 4.21 grammes in the first case; in the second one, of urea, from 24.07 to 39.35 grammes; of phosphoric acid, from 2.59 to 4.16 grammes. The whole quantity of urine, in the last two cases, was 14830 c. c., by daily variations from 1155 c. c. to 1715 c. c. in the first case, and 21144 c. c., by daily variations from 1600 c. c. to 2790 c. c. in the second case. The specific gravity in the first case varied from 1014 to 1026, making an average of 1020-21; in the second one, from 1009 to 1026, an average of 1018-19.

As it will be observed in the foregoing, the figures present a remarkable congruity. A greater number from other authors could be added, in order to substantiate

their correctness. In a healthy average man the daily amount of urea excreted, in grammes, rarely exceeds forty, or is below twenty, while the quantity of phosphoric acid excreted varies between 2 and 4.5 grammes.

It has already been indicated that in morbid conditions of the organism great variations occur. Thus, in the early stages of acute diseases, as pneumonia, typhus, meningitis, the daily amount of urea excreted increases, according to Vogel and Warnecke, to more than twice the normal average—that is, to from seventy to eighty grammes per diem, while in cases of chronic anæmia, according to my own observations, it remains below one-half of the usual average. In all these analyses the determination of the substances excreted was confined to their whole amount, during the twenty-four hours of the day. There is, at present, nothing definite known of their relative quantity at different times during this period, which would appear to be of especial interest in regard to the change of matter during the state of being awake and during sleep. If it is a natural law that the amount of urea excreted, stands in a direct proportion to the amount of physical and mental exertion performed, and that it is to be considered as a measure of muscular and nervous energy, this of course must become noticeable as a constant and regular rise and fall of its amount during the twenty-four hours of the day. I present, in the following tables, the results derived from my own investigations:

TABLE I.—MAN IN HEALTH.

FROM 6 A. M. TO 6 P. M. FROM 6 P. M. TO 6 A. M.

GRAMMES.					GRAMMES.								
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Yellow; Clear.	1024	Acid.	750	15.30	1.28	0.34	Light Yellow; Clear.	1020	Acid.	1150	15.84	1.59	0.31
Yellow; Clear.	1026	Acid.	650	12.09	1.38	0.29	Yellow; Clear.	1018	Acid.	980	11.98	1.31	0.30
Yellow; Clear.	1011	Acid.	1215	17.69	1.76	0.31	Light Yellow; Clear.	1009	Acid.	1575	13.23	1.30	0.31
Yellow; Clear.	1021	Acid.	800	14.93	1.27	0.32	Light Yellow; Clear.	1011	Acid.	1230	13.41	1.77	0.32
Yellow; Clear.	1022	Acid.	915	13.21	1.40	0.34	Yellow; Clear.	1023	Acid.	980	17.75	1.69	0.30
Yellow; Clear.	1015	Acid.	1314	16.56	1.73	0.30	Yellow; Clear.	1018	Acid.	1190	14.23	0.90	0.31
Yellow; Clear.	1019	Acid.	825	13.94	1.54	0.32	Yellow; Clear.	1018	Acid.	1020	12.37	1.15	0.30
Yellow; Clear.	1020	Acid.	930	17.43	1.31	0.28	Yellow; Clear.	1022	Acid.	975	13.91	1.42	0.31
Yellow; Clear.	1016	Acid.	1190	13.12	1.86	0.31	Yellow; Clear.	1021	Acid.	1350	21.23	1.67	0.32
Yellow; Clear.	1018	Acid.	1075	15.30	1.46	0.33	Yellow; Clear.	1023	Acid.	1010	21.01	2.08	0.33
TOTAL.	10132		9864	159.57	14.99	3.14	TOTAL.	10132		11480	159.96	14.86	3.11

TABLE II.—WOMAN IN HEALTH.

FROM 6 P. M. TO 6 A. M.

GRAMMES.					GRAMMES.								
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Barby Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Barby Ph.
Light Yellow; a little Cloudy from Urate of Soda.	1014	Acid.	600	9.30	0.99	0.31	Yellow; Clear.	1026	Acid.	555	18.04	1.17	0.33
Yellow; Clear.	1020	Acid.	900	13.81	1.49	0.32	Yellow; Clear.	1019	Acid.	515	10.96	0.76	0.33
Yellow; Clear.	1026	Acid.	635	15.08	1.24	0.33	Yellow; Clear.	1023	Acid.	850	20.02	1.19	0.34
Yellow; Clear.	1021	Acid.	620	17.83	0.97	0.33	Yellow; Clear.	1018	Acid.	945	20.43	1.70	0.34
Yellow; Clear.	1015	Acid.	680	11.45	0.81	0.32	Yellow; Clear.	1021	Acid.	650	16.94	0.71	0.31
Yellow; Clear.	1024	Acid.	900	25.31	1.02	0.33	Yellow; Clear.	1019	Acid.	815	16.43	1.83	0.33
Yellow; Clear.	1021	Acid.	950	19.29	0.75	0.31	Yellow; Clear.	1013	Acid.	530	13.68	0.80	0.32
Yellow; Clear.	1023	Acid.	750	18.91	1.16	0.33	Yellow; Clear.	1022	Acid.	680	17.19	0.73	0.31
Yellow; Clear.	1022	Acid.	800	20.09	0.80	0.33	Yellow; Clear.	1019	Acid.	940	19.94	0.78	0.31
Yellow; Clear.	1020	Acid.	800	18.11	0.89	0.33	Yellow; Clear.	1021	Acid.	635	18.95	0.78	0.33
TOTAL.	10206		7705	173.08	10.82	3.24	TOTAL.	10204		7125	172.89	10.45	3.24

TABLE III.—WOMAN (L. L. S.)

FROM 6 P. M. TO 6 A. M.

FROM 6 A. M. TO 6 P. M.

GRAMMES.							GRAMMES.						
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Barby Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Barby Ph.
Yellow; Turbid; White Deposit; Urates and Triple Phosphates.	1022	Alka-line.	280	5.29	0.11	0.23	Yellow; Clear.	1017	Slightly Acid.	500	7.64	0.52	0.26
Yellow; Cloudy; White Deposit of Urates.	1016	Alka-line.	765	10.17	0.70	0.29	Dark Yellow; Cloudy; Deposit of Urates.	1023	Slightly Acid.	562	8.43	1.16	0.64
Almost Colorless; a little Cloudy; small Deposit of Urates.	1008	Neutral.	763	6.71	0.16	0.30	Yellow; Clear.	1022	Acid.	546	8.46	1.08	0.89
Pale Yellow; Cloudy; Deposit of Urates.	1010	Acid.	227	3.59	0.08	0.21	Yellow; a little Cloudy; Deposit of Urates.	1017	Acid.	313	5.20	0.52	0.23
Pale Yellow; Clear.	1012	Slightly Acid.	515	6.27	0.09	0.21	Yellow; Clear.	1024	Acid.	312	5.56	0.67	0.23
Pale Yellow; Clear.	1012	Slightly Acid.	515	6.41	0.17	0.23	Light Yellow; Clear.	1018	Acid.	400	6.43	0.90	0.20
Pale Yellow; Clear.	1008	Neutral.	562	5.50	0.14	0.20	Yellow; Clear.	1014	Acid.	312	4.06	0.36	0.19
Pale Yellow; a little Cloudy; Deposit of Urates.	1013	Slightly Acid.	515	6.81	0.14	0.29	Yellow; Clear.	1023	Acid.	610	9.13	1.88	0.79
Pale Yellow; Cloudy; Deposit of Urates.	1007	Neutral.	545	4.81	0.08	0.20	Yellow; Clear.	1020	Acid.	388	4.59	0.67	0.20
Pale Yellow; Clear.	1008	Neutral.	575	4.64	0.24	0.22	Yellow; Clear.	1019	Acid.	186	2.73	0.34	0.20
TOTAL,	10116		5862	60.20	1.86	2.38	TOTAL,	10197		4120	61.26	8.08	3.86

TABLE V.—WOMAN (C. S.)

FROM 6 P. M. TO 6 A. M.

FROM 6 A. M. TO 6 P. M.

GRAMMES.					GRAMMES.								
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Light Yellow; Clear.	1029	Acid.	125	3.98	0.39	0.20	Yellow; Clear.	1028	Acid.	265	10.23	0.80	0.26
Yellow; Clear.	1028	Acid.	250	7.73	0.52	0.23	Yellow; Clear.	1023	Acid.	312	9.23	1.05	0.24
Yellow; Clear.	1023	Acid.	187	4.27	0.72	0.26	Yellow; Clear.	1016	Acid.	562	8.22	1.53	0.23
Light Yellow; Clear.	1021	Acid.	437	9.17	0.60	0.22	Yellow; Clear.	1023	Acid.	281	8.74	0.73	0.26
Dark Yellow; Clear.	1026	Acid.	172	4.22	0.08	0.24	Yellow; Clear.	1015	Acid.	349	7.89	0.81	0.20
Yellow; Clear.	1023	Acid.	250	5.18	0.12	0.24	Yellow; Clear.	1080	Acid.	375	13.90	1.05	0.26
Dark Yellow; Clear.	1084	Acid.	125	4.30	0.12	0.04	Yellow; Clear.	1011	Acid.	311	6.18	0.54	0.24
Dark Yellow; Clear.	1081	Acid.	156	4.70	0.19	0.14	Light Yellow; Clear.	1018	Acid.	406	8.97	1.08	0.20
Yellow; Clear.	1028	Acid.	208	5.24	0.28	0.20	Yellow; Clear.	1080	Acid.	421	16.59	1.54	0.20
Yellow; Clear.	1028	Acid.	198	4.15	0.11	0.26	Yellow; Clear.	1029	Acid.	485	14.20	1.12	0.22
TOTAL,	10270		2008	52.94	3.12	2.08	TOTAL,	10228		3768	104.15	10.29	2.31

TABLE VI.—MAN (C. G.)
 FROM 6 A. M. TO 6 P. M. FROM 6 P. M. TO 6 A. M.

GRAMMES.					GRAMMES.								
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Dark Yellow; Clear.	1015	Acid.	460	6.11	0.26	0.21	Dark Yellow; Cloudy; Deposit of Urates, Phosphates and Sperma.	1021	Slightly Acid.	470	17.03	1.31	0.24
Dark Yellow; Clear.	1026	Acid.	100	4.20	0.03	0.20	Dark Yellow; Clear.	1021	Acid.	780	23.95	1.64	0.23
Dark Yellow; a little Cloudy; Deposit of Urates.	1023	Acid.	375	13.09	0.57	0.20	Yellow; Clear.	1017	Slightly Acid.	561	12.91	0.95	0.23
Yellow; Clear.	1014	Acid.	500	8.23	0.17	0.23	Yellow; Cloudy; Deposit of Urates, Phosphates and Sperma.	1016	Slightly Acid.	1080	19.84	1.43	0.22
Yellow; Cloudy; Deposit of Urates and Phosphates.	1020	Alka-line.	720	10.08	0.54	0.21	Yellow; Cloudy; Deposit of Urates, Phosphates and Sperma.	1010	Slightly Alka-line.	530	8.16	0.50	0.20
Yellow; Clear.	1016	Slightly Alka-line.	470	7.29	0.28	0.23	The Same.	1012	Acid.	970	16.78	1.15	0.21
Yellow; Clear.	1020	Acid.	810	17.78	1.15	0.23	The Same.	1009	Alka-line.	875	10.06	0.70	0.23
Yellow; Clear.	1013	Acid.	470	8.24	0.28	0.24	The Same.	1010	Alka-line.	1155	17.40	1.37	0.20
Yellow; Clear.	1012	Acid.	545	11.31	0.41	0.22	The Same.	1010	Alka-line.	875	12.16	0.46	0.24
Yellow; Clear.	1022	Acid.	125	2.46	0.09	0.21	The Same.	1009	Alka-line.	1280	16.64	1.28	0.26
TOTAL.	10181		4575	88.78	3.78	2.17	TOTAL.	10135		8836	154.98	10.79	2.26

TABLE VII.—WOMAN (M. M.)

FROM 6 A. M. TO 6 P. M.

FROM 6 P. M. TO 6 A. M.

GRAMMES.				GRAMMES.									
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Dark Yellow; Clear.	1030	Acid.	201	5.80	0.24	0.25	Dark Yellow; a little Cloudy; Deposit of Urates.	1026	Acid.	576	12.08	1.23	0.26
Dark Yellow; Cloudy; Deposit of Urates.	1028	Acid.	180	3.91	0.03	0.20	The Same.	1030	Acid.	204	6.45	0.38	0.24
The Same.	1028	Acid.	250	6.25	0.40	0.15	The Same.	1029	Acid.	225	5.90	0.36	0.26
Light Yellow; Deposit of Urates.	1016	Acid.	455	8.24	0.44	0.13	Yellow; Deposit of Urates.	1027	Acid.	250	6.86	0.44	0.26
Yellow; Deposit of Urates.	1020	Acid.	500	10.05	1.14	0.13	Yellow; Cloudy; Deposit of Urates.	1020	Acid.	453	6.33	0.30	0.21
Pale Yellow; Clear.	1003	Acid.	312	3.36	0.01	0.13	The Same.	1014	Acid.	435	8.50	0.21	0.22
Light Yellow; a little Cloudy; Deposit of Urates.	1008	Acid.	515	6.50	0.41	0.15	Dark Yellow; Deposit of Urates.	1024	Acid.	200	4.48	0.36	0.23
Yellow; Deposit of Urates.	1014	Acid.	640	13.12	1.04	0.20	Yellow; Deposit of Urates.	1023	Acid.	265	7.70	0.36	0.22
Pale Yellow; Clear.	1002	Acid.	500	4.76	0.08	0.14	Pale Yellow; Clear.	1010	Acid.	206	3.92	0.07	0.26
Yellow; Clear.	1008	Acid.	530	5.23	0.49	0.15	Yellow; Clear.	1023	Acid.	250	4.79	0.34	0.28
TOTAL,	10153		4143	67.41	4.23	1.63	TOTAL,	10236		3134	67.10	3.75	2.44

TABLE VIII.—MAN (C. H.)

FROM 6 P. M. TO 6 A. M.

FROM 6 A. M. TO 6 P. M.

GRAMMES.				GRAMMES.									
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-ty in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-ty in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Yellow; Clear.	1025	Acid.	625	20.85	1.30	0.30	Pale Yellow; Clear.	1009	Slightly Acid.	988	11.19	0.51	0.28
Yellow; Cloudy; Deposit of Urates of Soda Phosphates.	1017	Acid.	688	16.58	1.06	0.29	Pale Yellow; a little Deposit of Phosphate Calcium.	1010	Slightly Acid.	987	11.29	0.53	0.36
Yellow; Turbid; Deposit of Triple Phosphates.	1009	Neutral.	843	10.26	1.63	0.32	Turbid; Deposit of Triple Phosphates.	1024	Alka-line.	842	16.92	1.22	0.33
The Same.	1018	Alka-line.	1156	15.17	1.22	0.31	The Same.	1015	Alka-line.	625	8.13	0.74	0.31
The Same.	1026	Alka-line.	523	17.48	2.00	0.30	The Same.	1024	Alka-line.	375	9.67	0.38	0.29
The Same.	1023	Alka-line.	781	18.67	1.91	0.28	The Same.	1022	Alka-line.	500	12.90	0.55	0.30
The Same.	1024	Alka-line.	625	17.21	1.74	0.30	The Same.	1024	Alka-line.	280	9.94	0.55	0.29
Yellow; a little Cloudy; Deposit of Urates and Phosphates.	1029	Slightly Acid.	408	13.56	0.92	0.28	The same as from 6 A. M. to 6 P. M.	1026	Alka-line.	250	8.77	0.29	0.26
The Same.	1024	Slightly Acid.	375	9.98	0.51	0.27	The Same.	1029	Slightly Acid.	408	14.11	0.90	0.28
Pale Yellow; Clear.	1011	Acid.	625	6.88	0.20	0.30	Yellow; Clear.	1021	Acid.	1083	23.55	1.77	0.32
TOTAL,	10206		6888	146.65	12.48	2.95	TOTAL,	10203		6186	126.47	7.44	3.02

TABLE IX.—WOMAN (M. M.C.)

FROM 6 A. M. TO 6 P. M.

FROM 6 P. M. TO 6 A. M.

GRAMMES.						GRAMMES.							
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan-tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Yellow; a little Cloudy; Deposit of Urates of Soda.	1025	Acid.	312	5.15	0.34	0.31	The same as from 6 A. M. to 6 P. M.	1022	Acid.	532	7.26	0.69	0.30
Dark Yellow; Turbid; Deposit of Urates of Soda.	1028	Acid.	315	15.60	0.75	0.30	Yellow; Clear.	1028	Acid.	470	18.10	1.29	0.31
Light Yellow; Clear.	1015	Acid.	343	7.31	1.23	0.30	Pale Yellow; Clear.	1010	Acid.	470	6.89	0.51	0.29
Straw Yellow; Clear.	1020	Acid.	406	9.48	0.60	0.29	Yellow; Clear.	1016	Acid.	500	12.32	0.85	0.29
Dark Yellow; Clear.	1028	Acid.	281	8.77	0.60	0.30	Yellow; Clear.	1026	Acid.	375	13.85	0.90	0.28
Yellow; a little Cloudy; Deposit of Urates of Soda.	1028	Acid.	250	7.18	0.44	0.28	Light Yellow; Clear.	1010	Acid.	500	7.55	0.48	0.30
Yellow; Turbid; Deposit of Urates of Soda.	1030	Acid.	250	8.20	0.63	0.29	Yellow; a little Cloudy; Deposit of Urates of Soda.	1036	Acid.	312	12.14	0.95	0.31
Yellow; a little Cloudy; Deposit of Urates of Soda.	1032	Acid.	375	10.68	0.71	0.30	The Same.	1029	Acid.	531	16.62	1.76	0.31
Pale Yellow; Clear.	1019	Acid.	406	4.59	0.02	0.29	Pale Yellow; Clear.	1007	Acid.	500	3.90	0.12	0.29
Yellow; Clear.	1015	Acid.	500	5.59	0.26	0.28	Yellow; Clear.	1008	Acid.	625	6.05	0.23	0.30
TOTAL,	10230		3438	82.52	5.56	2.94	TOTAL,	10192		4815	104.68	7.86	2.98

TABLE X.—MAN (W. M.)

FROM 6 P. M. TO 6 A. M.

GRAMMES.				GRAMMES.									
Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan- tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.	Color; Deposit, etc.	Spec. Grav-ity.	Re-action.	Quan- tity in C. C.	Urea.	Phosphoric Acid in Alk. Phos.	Phosphoric Acid in Earthy Ph.
Pale Yellow; Clear.	1011	Acid.	1350	17.21	1.05	0.20	Yellow; Clear.	1002	Acid.	1940	17.94	1.27	0.22
Could not be Obtained.							Pale Yellow; Clear.	1003	Acid.	1780	17.80	1.21	0.21
Could not be Obtained.							Pale Yellow; Clear.	1004	Acid.	1375	16.95	1.25	0.23
Pale Yellow; Clear.	1012	Acid.	812	11.97	0.63	0.22	Pale Yellow; Clear.	1004	Acid.	1906	19.44	1.65	0.20
Could not be Obtained.							Pale Yellow; Clear.	1008	Acid.	1875	15.84	1.27	0.23
Pale Yellow; Clear.	1009	Acid.	1375	22.96	1.04	0.21	Pale Yellow; Clear.	1008	Acid.	1875	22.38	1.58	0.22
Pale Yellow; Clear.	1009	Acid.	2000	26.00	1.52	0.24	Pale Yellow; Clear.	1008	Acid.	2000	27.80	1.85	0.23
Could not be Obtained.							Pale Yellow; Clear.	1010	Acid.	1375	22.00	1.52	0.24
Could not be Obtained.							Pale Yellow; Clear.	1007	Acid.	2375	30.64	2.35	0.26
Pale Yellow; Clear.	1013	Acid.	1275	20.94	1.28	0.21	Pale Yellow; Clear.	1009	Acid.	1265	19.10	1.34	0.24
TOTAL IN 5 DAYS,	10054		6712	99.08	5.52	1.08	TOTAL,	10048		17726	203.80	15.29	2.28.

The examinations, as the tables show, have been carried out so that in each case the urine which was passed during the twelve hours of the day was collected, measured and analyzed separately from that passed during the twelve hours of the night. In the first there was, therefore, included the quantity passed immediately after the day's work and exercise; in the latter, the morning urine after night's rest.

The estimations were made by the volumetric method, and in every case an equal volume of the urine was subjected to an analysis, while the same measuring tubes were employed. The relations the figures bear to each other are therefore correct, even if there should be an error in the absolute quantity which they represent. The latter may, however, hardly be expected, since the liquids used were prepared by myself, and their strength, estimated by adding a known quantity of pure urea and of pure phosphate of soda to a certain amount of urine, and by determining the quantity of each present in the urine, before and after the addition. The figures, of course, give the whole amount of the urea and the phosphoric acid excreted.

In the first two tables I present for comparison the results of the examination of the urine of two persons, in health, during the time of ten days. Table I. is that from a man about forty years of age, of regular habits of life, and who had, during the day, a fair amount of physical exercise, while the night hours, from eight to twelve o'clock, were occupied by mental labor; sleep amounted to from five and a half to six hours. The woman was about twenty-five years of age, mother of two children, of which the one was still on the breast. She was doing common housework during the day, and spent some evening hours in reading, etc. She was in the habit of retiring early, between nine and ten o'clock

P. M.; sleep amounted, in the average, to from eight to nine hours.

If we subject the first table to a closer examination, comparing the single data, we find that there is a considerable fluctuation in the whole daily amount of urea excreted from a minimum of 24.07 grammes, during the twenty-four hours of the fourth day, to the maximum of 39.35 grammes on the ninth day, making a difference of 15.28 grammes. The amount of phosphoric acid excreted during the same period varied from 3.28 grammes to 4.20 grammes, making a difference of 0.92 grammes. If we, however, take the arithmetical mean of the whole amount of urea and phosphoric acid, excreted in the ten days, equal to 319.53 grammes of the former, and 36.22 grammes of the latter, we have 31.95 grammes of urea, and 3.62 grammes of phosphoric acid, excreted per diem, figures very closely, reaching the normal average above stated.

If we compare the quantities of urea and phosphoric acid excreted during the hours from 6 A. M. to 6 P. M., with those excreted from 6 P. M. to 6 A. M., we find that the highest difference amounts to 4.46 grammes in the former, and 0.53 grammes in the latter. Yet the most interesting fact is the close correspondence of the total amounts excreted; of urea, 159.57 grammes, from 6 A. M. to 6 P. M., and 159.96 grammes from 6 P. M. to 6 A. M.; of phosphoric acid, 18.23 grammes from 6 A. M. to 6 P. M., and 17.99 grammes from 6 P. M. to 6 A. M. Moreover, the sums of specific gravities, 10182, are exactly the same up to the last figure, while in the total quantity of urine, 9664 c. c. and 11480 c. c., there is a plus of 1876 c. c. on the side of the amount excreted during the night.

If we look over the second table, we will first notice the same correspondence between the total quantities

of urea and phosphoric acid excreted during the hours of the day, and those excreted during the nights, of urea, 173.03 grammes from 6 A. M. to 6 P. M., and 172.89 grammes from 6 P. M. to 6 A. M.; of phosphoric acid, 13.96 grammes from 6 A. M. to 6 P. M., and 13.71 grammes from 6 P. M. to 6 A. M. There is only a slight difference between the sums of the specific gravities, 10206 to 10204, while the total quantities of the urine, 7705 c. c., and 7125 c. c., show a plus of 580 c. c. on the side of the amount excreted during the day. The difference between the minimum, 27.34 grammes, and the maximum, 41.74 grammes, of the total daily excretion of urea, making 14.40 grammes, corresponds with that of the foregoing table, 15.28 grammes; while the sum of the whole amount of the ten days, 345.92 grammes, gives a daily average of 34.59 grammes, against the 31.95 grammes of table I. This slight increase, hardly worthy of notice, is probably due to the differences in the age of the two persons, since the quality of the food partaken, was the same during the time when the examinations were made. The daily fluctuations in the whole amount of phosphoric acid, in table II, are higher than in table I, from 2.17 grammes to 4.11 grammes, yet inside of the limits of the normal average. The total amount, however, of the ten days, 27.67 grammes, against 36.22 grammes in table I, making a difference of 8.55 grammes, or 0.855 per diem, is a fact to which I call attention for the reason that I have made a great number of series of comparative analyses of the urine of healthy men and women, with the same result, viz.: that there was in all cases a considerable falling off in the amount of phosphoric acid in the urine of the latter, due invariably to the presence of a smaller quantity of the alkaline phosphates, while the amount of the

earthy phosphates was generally of a remarkable uniformity.

Regarding finally the proportion of the amount of urea and of phosphoric acid excreted in the urine of healthy persons, it is evident that no certain relation between the two substances exists, since the figures of the table show that, as well in the daily amount of urea and phosphoric acid excreted, as in the total of a series of days the minimum amount of the former may be co-existent with the maximum of the latter, and *vice versa*.

From the facts presented in tables I and II, I draw the following general conclusions regarding the elimination of urea and phosphoric acid in a state of health.

1. The processes of waste and repair in the human system, which are represented quantitatively by the amount of urea and phosphoric acid eliminated through the kidneys are going on continuously and, generally, with a remarkable uniformity.

2. The temporary fluctuations in their energy are balanced by periodic equalizations.

3. The processes are quantitatively the same during the twelve hours of the day as during the twelve hours of the night.

4. The rise and fall in the amount of urea excreted is independent of the physical and mental occupation of the individual.

5. The amount of phosphoric acid in the alkaline phosphates, eliminated by the kidneys, seems to stand in proportion to the change of matter in the nervous tissues of the body.

We will now consider the data presented in tables III to X.

The persons who furnished the urine for the analyses in these tables were in a general anæmic condition com-

bined, with the exception of the case given in table IX, with more or less physical disturbance. Yet differences are to be recorded in each case in regard to the etiology, the course and the prognosis of the affection.

In the two cases represented by tables III and IV, there was a chronic general anæmia of a slow and gradual development. As to the mental state there was a likewise slowly developed sub-acute maniacal condition with a tendency to dementia. In the cases, tables V and VI, the anæmia was of a more acute origin; in the first, of the woman, connected with puerperal mania; in the second, of the man, connected with melancholic excitement, originating from excesses in venere. The case, table VII was one of chronic general anæmia with dementia; the case, table VIII, one of acute anæmia from loss of blood by a suicidal attempt; case, table IX, one of chlorosis; and case, table X, one of secondary anæmia, combined with paresis.

If we compare the tables we will first notice, with the exception of table VIII, acute anæmia, and table X, secondary anæmia with paresis, the remarkable falling off of the amount of urea and phosphoric acid during the ten days of observation. The former reaches its lowest figure in table III, sub-acute mania with a tendency to dementia, 121.43 grammes in ten days; the latter in table VII, dementia, only 11.08 grammes in ten days, making a daily excretion of 12.14 grammes of urea and 1.108 grammes of phosphoric acid, or in each day 21.13 grammes of urea and 1.66 grammes of phosphoric acid less than the normal average. The highest figure for both substances in the chlorotic patient, table IX, is 187.20 grammes of urea, and 19.36 grammes of phosphoric acid, which makes a daily falling off of 14.55 grammes of the former and 0.84 grammes of the latter. In table VI, a case in which the patient, a mel-

anchoic, etc., regained his bodily strength and was discharged mentally improved, we find 243.71 grammes for urea and 19.00 grammes for phosphoric acid, or daily 8.90 grammes of the former and 1.9 grammes of the latter less than the normal average.

In table VIII, the case of acute anæmia, the figures show 273.12 grammes of urea and 25.79 grammes of phosphoric acid, excreted in ten days, or a daily falling off of only 5.96 grammes of the former and of 0.58 grammes of the latter. As the anæmic condition in this case was consecutive upon a considerable loss of blood and not connected with primary general disturbances of nutrition, the comparatively high figures are quite in accordance with experiments made on animals, which have shown that the amount of change of matter in the animal body, is of course in certain limits, independent of the quantity of blood in circulation. In table X, the one half of which is incomplete, but which, when completed in the same rate, as recorded during five days of observation, would give in ten days 402.05 grammes of urea and 31.77 grammes of phosphoric acid, or a daily increase of urea of 6.93 grammes over the normal. This increase unquestionably indicates the wasting of tissues concomitant with the progressive pathological processes characteristic of the disease.

The examination of the tables from the point of view of the relative amount of the substances in question excreted during the twelve hours of the day compared with that excreted during the twelve hours of the night, reveals the following interesting facts: In tables III, IV and VII, we find in regard to the relative quantity of urea during the ten days of observation from 6 A. M. to 6 P. M. and from 6 P. M. to 6 A. M. the same correspondence as in table I and II of the healthy persons, although the whole amount remained much below one

half of the normal. The figures 60.20 grammes and 61.23 grammes of urea in table III, and 67.41 grammes and 67.10 grammes of urea in table VII, correspond exactly. In table IV the 65.87 grammes of urea during the day and the 75.67 grammes during the night give a difference of 9.8 grammes or of 0.98 grammes daily, which can be considered as unimportant.

In regard, however, to the amount of phosphoric acid excreted during the same period we notice a remarkable difference. In table VII, case of dementia, the figures for the phosphoric acid from alkaline phosphates as well as from the earthy phosphates, although more than one-half below the normal, correspond exactly. In table IV, the quantity of the alkaline phosphates excreted during the hours of the night is about twice that excreted during the day; in table III the quantity of the former exceeds about five times that of the latter. In both cases, though far below the normal, this would indicate, as I believe, a favorable increase in the change of matter in the nervous tissues during rest, while in the foregoing case of dementia table VII, that change of matter seemed to have reached both during day and night an exceedingly low point. The theory advanced here, appears to be supported by facts arrived at in table V and VI. There we find a similar relation. The amounts of the earthy phosphates correspond almost exactly. Of the alkaline phosphates we find about three times the quantity excreted during the night as during the day. Yet in the latter two cases, we furthermore notice the interesting fact, that in the first one, table V, the amount of urea excreted during the night also exceeds exactly twice the amount excreted during the day; while in the second case, table VI, the proportion between the two is not very far from being the same, viz: 52.94 grammes of urea during the day, against

104.15 grammes during the night in the first case; and 88.78 grammes of urea during the day against 154.93 grammes during the night in the second case. Both cases were taking physically and mentally a favorable course, and it appears as if nature in both was making an effort to balance the disturbed and impeded change of matter during the day, by an increase of double its amount during rest. This view finds another affirmation in the facts revealed by table IX, the case of the chlorotic patient, where we again observe the similar increase of the amount both of urea and of phosphoric acid excreted during the hours of rest, viz: 82.52 grammes of urea and 5.58 grammes of phosphoric acid from the alkaline phosphates during the day, against 104.68 grammes of urea and 7.86 grammes of phosphoric acid during the night.

In table VIII, the case of acute anæmia, a slight increase in the amount of urea, as well as of phosphoric acid, will be noticed on the side of the excretion during the day, of about 2 grammes of urea and 0.5 grammes of phosphoric acid per diem. This small difference, of course, would seem to be of not much weight, yet, when we look over the single data presented in the table, it becomes apparent that there existed great fluctuations in the amount, both of the urea and the phosphoric acid excreted. With the exception of the last two days, there is a remarkable increase in the change of matter during the day over that during the night. It may be remarked here, therefore, that the patient, during the time when the examinations were made, was exceedingly restless and excited during the night, so that it became finally necessary to administer at midnight a second dose of hydrate of chloral, the effect of which was at once noticed in the change of the excretion of urea, as well as of phosphoric acid, by the remarkable increase in their

quantity during the night, viz: In the last two days, 16.86 grammes of urea and 0.71 of phosphoric acid, from the alkaline phosphates, during the day-time, against 37.66 grammes of urea, and 2.67 grammes of phosphoric acid during the nights. This fact again appears to affirm the statement alluded to in the foregoing, that the morbid mental excitation in melancholia as well as in mania does not augment, but impedes the general change of matter in the human system in cases connected with primary anæmia.

This latter fact has, however, no reference to the exalted mental condition combined with paresis, as the last table X shows. Although imperfect as it is, it appears to reveal the interesting fact of a morbid increase of change of matter at the cost of the constituents of the body itself.

Another point in the tables, to which I would call attention, is the high specific gravity of the urine in the majority of cases of chronic anæmia, a fact which does not quite correspond with the small amount of urea present. In some of the cases analyzed I found a very high percentage of chlorides, which may account for it, yet my observations on the amount of these, of the sulphates and of iron, are not closed. The amount of uric acid excreted has been determined in each case analyzed, but has been left out in the tables on account of its small amount on the one hand, and the great variations in its quantity on the other, without any apparent relation to the quantity of the other constituents of the urine.

The great uniformity in the amount of the phosphoric acid belonging to the earthy phosphates, is well worth noticing, although it remained, with the exception of the cases of acute mania, table VIII, and of chlorosis, table IX, much below the normal. There

was also in five cases, tables III, IV, V, VI and VIII, a marked tendency to affections of the bladder, with alkaline fermentation of the urine, which, however, readily yielded to the administration of lactic acid.

From the facts presented in the tables, we draw the following conclusions in regard to the general change of matter in anæmia, as far as its amount is indicated by the amount of urea and phosphoric acid eliminated through the kidneys:

1. In primary chronic anæmia there is a remarkable decrease in the amount of urea and phosphoric acid in the urine, which indicates grave disturbances in the nutrition of the tissues, and a diminution of the general change of matter in the system.

2. The diminution in the general change of matter reaches its lowest point in chronic anæmia with dementia, and next to this in cases connected with sub-acute mania, with a tendency to dementia.

3. The condition of morbid mental excitement in primary chronic anæmia is co-existent with a decrease in the general change of matter, and seems, to a certain degree, to impede the processes of waste and repair.

4. In cases of anæmia of a more acute character with a favorable physical and mental prognosis, there is a remarkable increase in the general change of matter during rest.

5. In the case of acute anæmia the amount of the general change of matter was not affected by the considerable loss of blood.

6. Secondary anæmia is combined with a morbid increase in the general change of matter at the cost of the tissues of the body.

7. In regard to the treatment of anæmia the conclusions drawn from the tables would indicate the great therapeutical value of rest, bodily and mental.

PATHOLOGY OF NOCTURNAL EPILEPSY.*

BY DR. M. GONZALEZ ECHEVERRIA.

Translated from "*Annales Médico-Psychologiques*," March, 1879.

The more marked clinical peculiarities and the connection of nocturnal epilepsy with sleep, still continues to be vaguely described. In order to give greater precision to these insufficient data, I will proceed, gentlemen, to state without much introduction the result of my observations upon this subject.

Nocturnal epilepsy, in the majority of cases, proceeds from radically similar etiological causes. Among 783 epileptics, 111 had nocturnal seizures, and of this number 78, that is to say 75 per cent, manifested at the same time intellectual disorders, more or less permanent. It would further appear by an analysis of a total of 267 insane epileptics, that about one-third were subject either to simple nocturnal attacks, or these were joined to convulsive attacks during the day.

The following is the etiology of 111 cases: Hereditary predisposition, 25; injuries to head, 16; intemperance, 19; syphilis, 7; insolation, 3; menstrual disorders, 14; pregnancy, 1; mental anxiety, 3; fear, 1; excessive corporal punishment, 1. Total, 80. Causes unknown, 31.

The sex of the patients was as follows: Men, 42; women, 69. Total, 111.

Classified in relation to their respective ages there were: Children, 19; youths, 36; adults, 56. Total, 111.

It appears from this statement that men are less predisposed than women to nocturnal attacks. If we deduct four cases of menstrual disorder and one of pregnancy from 80 cases of which the etiology can be proven, we have 75 epileptics with the following causes: Hereditary predisposition, injury to head, syphilis, intemperance, mental anxiety, fear, insolation and excessive corporal punishment, which, in spite of their diversity, connect themselves by analogy as being essentially cerebral in their nature.

Now, are these nocturnal attacks of a different nature from other attacks? They are not, and this is the important point to note.

*A paper read before the Medico-Psychological Society, Paris, December 30th, 1878.

Ninety-two of these 111 epileptics exhibited during the day *petit-mal*, vertigo, forgetfulness, fainting fits, or momentary strange sensations in the head. The rest of the patients were in an advanced stage of continuous insanity. The conjunction of these facts indicate that the nocturnal attacks are not outside of the essential law, upon which the development of the epileptic neurosis depends, since there was needed, in order to produce them, in all my patients, the intervention of causes, which at the same time, and in the same degree, conspired to the development of the mental attacks. This cerebral origin accounts for the pernicious effects generally produced by these nocturnal attacks upon the intellectual faculties. On the other hand, their intimate connection with attacks of mental disturbance carries a clinical significance of such force that I regard the nocturnal attack as one of the pathognomonic phenomena of true epilepsy. The state of pregnancy, as a determining cause of epilepsy, has in itself an influence already noted by authors, combined with other very marked peculiarities. A woman X, aged 35 years, without any heredity nor alcoholism, became an epileptic at the beginning of her first pregnancy, and was delivered of a child who grew up perfectly well. The attacks, invariably nocturnal, were repeated at every subsequent pregnancy, but never at other periods, nor during her parturition, although convulsive and maniacal seizures sometimes appeared after her confinement. This woman has had six sons, all excepting the last (first) epileptic from their birth. Her attacks came on once or twice a week, followed by obscurity of the intellectual faculties, moodiness and suicidal inclinations.

She left the hospital at the seventh month of her pregnancy, to go to Philadelphia where her family resided, without having obtained any benefit from the bromide treatment. Being without information regarding the health of her husband or further knowledge of the course of the case, we can not know whether the seventh son was also born epileptic or not.

Whatever may have been the immediate cause of these attacks in this singular case we can not comprehend, why, in the first pregnancy and not in the others, the fœtus was sheltered from the influence which continued identical with all the others.

Insomnia is principally associated with a high degree of cerebral excitation, a fact entirely at variance with the idea ordinarily held, that its opposite condition, sleep or repose of the brain creates a predisposition to epilepsy.

It is necessary in order that this phenomenon take place, that the nerve centers, fatigued and eager to recuperate their loss, re-

gain by nutrition that degree of susceptibility which will burst forth with more or less promptitude into phenomena psycho-sensorial or convulsive in their character. By this I do not wish to assert that these attacks of nocturnal epilepsy may not have been observed without the patient having been previously awake. What I mean to especially emphasize is that when the brain itself sleeps from the necessity of repose and to renew its nutrition, the danger of an epileptic attack is not immediate, and this is so constant that the epileptic upon retiring soon falls into a profound sleep, a phenomenon which does not exist, however, with insane epileptics who retire only to continue during the night the delirium of over mental excitement. Nothing is more exceptional than to have these nocturnal attacks occur during the first sleep of the patient. The reparative process which is being accomplished in the brain prevents the explosion. On the other hand, every patient who does not sleep at the close of *grand-mal*, generally continues with his intellectual faculties dulled and with headache, until sleep comes and re-establishes the intellectual equilibrium; and if *grand-mal* terminates in sleep, insanity never appears immediately after its occurrence. Sleep in such cases indicates that the epileptic attack is finished, and in like manner, when epileptic insanity terminates by sleep it is a transition stage to sanity. The termination of the mental crises, usually called abrupt, never takes place instantaneously; the end of their manifestation is sleep, many times preceded by a convulsive paroxysm. The simple seizures of *petit-mal* pass like flashes of lightning, but the irresistible tendency to sleep when they are repeated in a series of several consecutive attacks, unless mania intervenes, is a phenomenon known to all. When these maniacal crises are of short duration the terminal period of sleep is apparent, but if the psychical disorder persists for many days, and if the sleep, as often occurs, supervenes during the night, it then passes without impression as a natural occurrence, and the epileptic awakens the next day, again master of his intellectual capacity. This last fact, and the general propensity to consider the mental crises terminated, by an impulsive act of violence, which often is only an inter-current accident, explains why M. Legrand du Saulle and other authors regard the sleep in question as a phenomenon always due to a state of intoxication, grafted upon an epileptic attack; an exaggerated opinion, contradicted by the number of epileptics whose attacks arise from some other etiological cause than alcoholism. An illustration well describing this phenomenon

is that of a lady who was possessed with an irresistible desire, every month, to kill her daughter. She was in the habit of passing about twenty-four to thirty-six hours in an indescribable state of anxiety, which alarmed her husband, her mother and the domestics, after which she would fall asleep, and on awaking, would declare herself cured and demand her child.

I borrow this example, free from all alcoholism from observations reported by M. Legrand du Saulle in his medico-legal studies upon epileptics, in preference to cases described by other authors or from my own clinic. It is easy to note sleep as the termination of epileptic insanity in many scattered observations in our periodicals and classical works, but without bringing out the importance which is, however, attached to it. We find it described with striking truth in one of the most ancient and faithful portraits which we possess of epileptic, homicidal mania. The subject of this sketch is Hercules, whose name, as we know, was one of the first given to the epileptic disease.

Behold this graphic narration copied from Euripides and from Seneca, by Josat in his interesting historic researches upon epilepsy. "One day when Hercules was offering a sacrifice to Jupiter, he suddenly pauses, his eyes roll in a frightful manner and become bloodshot; foam flows down his beard; there is a sardonic smile on his face; he denudes himself and beats the air. He appears restored, when suddenly he seizes his arms, pursues his father and his children. He would have killed his own father, had not Pallas intervened, seized him, and thrown him upon the earth. Soon he falls into a profound slumber. On awakening and seeing around him these corpses he is thunder-struck at the sight, and still more upon learning that he alone was the author of this carnage. Then it is that he wishes to kill himself. His remorse is fearful. Theseus, his friend, persuades him that this would be an act of cowardice. He consents to live and retires to Athens."

It would be vain to attempt to depict with greater exactitude the whole appearance of a crisis of epileptic mania, or better designate, though incidentally, the heavy sleep which precedes re-establishment of reason and forgetfulness. It is only epileptic insanity which exhibits itself in the middle of the night, during sleep, for every other class of insanity is, in its beginning, ordinarily preceded by sleeplessness.

In order to appreciate justly the effects of sleep upon epilepsy it is necessary to know previously if the different periods of the day have any special influence upon the attacks.

An examination of the hours in which my patients have been principally seized, shows that it occurs in the morning. It is a strange and curious fact that at the decline of day and at the commencement of the night, epileptics remain almost free from seizures. The diurnal attacks of 214 epileptics collected during a period of fifteen consecutive months, make a total of 14,982 occurring at the following hours: Morning, (early, upon rising), 5,130; between six in the morning and noon, 7,503; between noon and six in the evening, 2,153; between six in the evening and bed-time, (between nine and eleven), 296.

It is observed by those who pass much time with epileptics, that the periods of comparative calm, and the remissions from attacks are during the last hours of the day. Now, as I pointed out a moment ago, nocturnal epileptics are very rarely seized by their attacks at the commencement of their sleep, and they are, according to my observations, least exposed between ten o'clock in the evening and two o'clock in the morning. Thus during twenty consecutive months, 78 nocturnal epileptics had 2,896 attacks between two and five in the morning, and only 92 attacks between ten in the evening and two in the morning. If we group together the hours of the diurnal and nocturnal attacks, we see, as has been remarked, that the first hours of the morning are those in which the attacks are most frequent, without doubt, because as Spencer has well said: "The more the process of repair of the nerve-centers continues without interruption, the more their instability increases, with a greater tendency to motor reactions, upon the slightest impressions."

The most of the crimes committed by epileptics have taken place in the morning or middle of the night, and of all the manifestations of epilepsy, none are more apt than the nocturnal ones to mark their passage by sudden, violent impulses, and by mania.

Before speaking of the physical phenomena connected with nocturnal attacks, I will emphasize, by a few words, the physical evidence of their occurrence. Trousseau insisted much upon incontinence of urine as one of the principle pathognomonic signs of nocturnal epilepsy; the value of this accident is indisputable, although its frequency is less than was supposed by Trousseau. In the 111 cases of epilepsy here considered, only 77 had incontinence of urine with their nocturnal attacks. This symptom was present then in 69.27 per cent of the cases. These patients comprised 19 children, under 12 years, 23 youths and 36 adults. All the

nocturnal epileptic children that I have observed had suffered from incontinence of urine in their attacks. This symptom always accompanied an attack, confirming the pathognomonic value that Trousseau has given it. The number of nocturnal epileptics who bite their tongue and show lacerations on the morrow, amounts to 42, to wit: children, 13; youths, 10; adults, 19. This number, equivalent to 37.84 per cent of the cases, and all excepting two adults and one youth, had, moreover, incontinence of urine with their attacks; a degree of symptomatic association worthy of being noted.

The petechiæ upon the face and breast, after the attack, were, in my patients, more frequent than the biting of the tongue. The petechiæ were observed in 63 cases, comprising children, 13; youths, 18; adults, 32, or in other words 56.75 per cent, nocturnal epileptics. The appearance of these petechiæ was not the same in all cases, sometimes the eruptions formed an agglomeration of very small points, almost imperceptible on the eye-lids, the forehead, the neck and chest. Sometimes there were small ecchymotic patches on the buccal mucous membrane; these capillary hæmorrhages existed also upon the conjunctiva, and in three men and two women the sclerotic was covered with a sanguineous extravasation, which existed also upon the eye-lids.

In a woman these nocturnal attacks occurred once or twice a week, and left for two or three days a confluent eruption upon the neck and arms, which became much more intense and more extended every time that the attacks of *petit-mal* increased on the morrow of a nocturnal crisis, and were followed always by maniacal paroxysms and bursts of laughter. As to the state of the retina after nocturnal attacks, I repeat that which I have already remarked regarding its post-epileptic changes, in ordinary cases. Hyperæmia of the retina in simple cases is not persistent, but disappears after a few hours, along with other effects of the attack. This is applicable to all hyperæmiæ, of a degree sufficient to be distinguished from the habitual condition of the retinal vessels, for the fleeting oscillations of blood which occur, are impossible of recognition. The hyperæmia is not fixed, but relative to the activity of the circulation; besides we often can not prove a change in the circulation in the fundus of the eye during the attack of epileptiform mania, and for all these reasons I regard the variations in the appearance of the retina as of no specific value, in themselves, to determine the nocturnal attack, the day after its occurrence.

The pulse experiences notable variations before and after the nocturnal attack. Habitually, it is slower by ten to fifteen pulsations the morning after the attack, while it increases in the evening and becomes irregular. Several sphygmographic traces have shown that this acceleration of the pulse is accompanied with a very marked dirotism of the wave which continues from four to six hours, both after the diurnal and nocturnal attacks. Finally, among the epileptic insane, I have observed regularly the evening before the attack, an elevation of the central temperature of from 1° to 2° Fahrenheit above that of the morning, which has permitted me in some cases to prevent the occurrence of the nocturnal attack, by the administration of nitrite of amyl.

There is finally a phenomenon which has not, to my knowledge, been mentioned up to the present time. Many epileptics immediately after the explosion of the attack, in the middle of the night, but principally upon waking the next morning, suffer from a numbness or a painful weakness which sometimes reaches to the degree of a true transient paralysis in one or both arms, or less often in the legs. In many cases, and these are predominant ones, the regions supplied by the bulbar nerves, are the seat of the paralysis. Then, we find it in the muscles of the eye, under the form almost always of a slight convergent strabismus; often there is ptosis, or the articulation of words is constrained, with trembling and apparent difficulty of protruding the tongue, and, united with these phenomena, we do not fail to observe headache.

The point which I insist upon, is that the existence of these paralytic symptoms prevents, so far as I have been able to control it, the immediate occurrence of the mental disorder which follows on the morrow of the attack, because as I will show presently, its manifestations terminate with the nocturnal symptoms.

The nocturnal attacks can be classified into three distinct groups:

First. Attacks which occur suddenly, in silence, or introduced with a piercing cry in the middle of the night, and without awakening the epileptic after his convulsion, being also ordinarily accompanied by incontinence of urine, biting of the tongue, with petechiæ upon the face and neck, headache, and sometimes as just described, with paralytic accidents the next day. These attacks, almost always single, have a very short duration and are never the precursor of mania the next morning, because their evolution being rapid, instantaneous and ordinarily unperceived, terminates during the night.

Second. Attacks in which the convulsions, limited especially to the face, are of secondary importance, from the predominance of the hallucinatory element, which impels the patient to automatic acts, terminating in the eruption of some form of violent fury. The manifestations of these attacks are accomplished with rapidity, but in a manner less instantaneous than in the former cases.

The maniacal termination of these attacks distinguishes them from the much longer attacks of somnambulism, in which the wandering actions and the sudden reflex movements are wanting. The morning after such an attack the epileptic awakens with a prostration of the physical and mental powers, and heavy head, without memory of his past acts, but with a remembrance more or less clear of a bad dream or a frightful nightmare. The bitings of the tongue diminish, but the incontinence of urine does not vary in its frequency with the attacks, which are already completed and ordinarily single.

Third. Attacks sometimes isolated, sometimes combined in a series of four, six or more consecutive fits, accompanied by frightful hallucinations, but without the automatic acts observed in attacks of the second group, and here replaced with turbulent agitation of the patient, now become delirious. Sometimes a profound stupor follows these attacks, then they are not violent and the epileptic remains in the most complete indifference, passing his excrements and urine upon his person.

In other cases there is a religious delirium which comes over them, or else the epileptic blindly obeys his delirious conceptions and instinctive impulses, or, still more, he thinks he has regained his usual manner, and speaks and acts in a sane way, when, in reality, he is unconscious, and absolutely incapable of appreciating either his acts or his surroundings. In this state the least physical or moral impression provokes a violent instantaneous reaction, favored by the hallucinations and irritability of the general sensibility, the essential source of the irresistible impulses of epilepsy. In this third group of attacks the nocturnal accident is the beginning of the delirious crisis, which continues until the next day, or even longer. These attacks are less often accompanied with incontinence of urine, and very rarely with biting of the tongue, but we see just as in the other cases, petechiæ marking their course.

This distinction between these three classes of nocturnal attacks shows how we may confound those of the second class with attacks of somnambulism, when we have not exact information in regard

to the individual. It is worthy of remark, that it is above all the attacks of the second and third groups that occasion impulsive and criminal accidents. This arises from the fact that on the one hand these are essentially hallucinatory or delirious, and consequently not convulsive; on the other hand, that they constitute mental crises, instead of presenting the momentary convulsive movements of the first.

I must add, in order to complete the account of all the psychical varieties, that sometimes the nocturnal attacks precede in an obscure periodical manner either a general state of melancholy, with the physical and moral depression, so profound as to reach stupor, or, on the contrary, an excessive maniacal delirious exaltation. These two varieties of mental disease, constituting, by their regular alternation, a true "*folie circulaire*," whose epileptic origin often remains unrecognized.

I have generally found hallucination of hearing to predominate in epileptic insanity. They existed in sixty-two per cent of my cases, while those of sight existed in fifty-three per cent, and the two together may be stated at forty-three per cent of the cases. Nevertheless, in nocturnal epilepsy the hallucinations of sight appear to occupy the front rank, because they were observed in sixty per cent of the one hundred and eleven cases here analyzed. Hallucinations of hearing existed in the proportion of fifty-one per cent of the cases. Hallucinations of hearing and of sight together, in thirty-six per cent of these cases. In two cases hallucinations of smell, and in one hallucinations of taste, were noticed. Finally, twenty-seven per cent of the patients complained of troubles of general sensibility, such as irritability, numbness, anæsthesia, etc.

The visions which torment the nocturnal epileptic are habitually terrifying in their character, and always of a red color, or surrounded by flames, but sometimes changing their aspect, they take the exaggerated religious form, which we find also connected with diurnal attacks, and which appears very manifest in the narration, made by Hecker, of the dancing maniacs of the fourteenth century. These individuals, as is well known, being epileptics, fell immediately with *grand-mal*, followed by mania, during which they were insensible to all external sensual impressions, and a prey to mystical visions without number, seeing the heavens open, the Savior and the blessed Virgin. Maudsley has shown us that the inspiration of Swedenborg arose from his attacks of nocturnal epilepsy, whilst the visions and dreams of Mahomet, much more remarkably epileptic, still feeds the religious fanaticism among

many millions of our race. To appreciate all the influence of the various hallucinations it is necessary to remember that the impressions, instead of becoming fainter, revive with force in certain morbid conditions of the brain, and principally in epilepsy. The physical traits of the first attack reproduce themselves, with uniformity, in all the other attacks.

I saw in New York a young lady, whose father and husband were shot in her presence, during the last insurrection in Cuba. This inhuman spectacle rendered her insane and mute, with attacks of nocturnal epilepsy, followed by a cataleptic condition, in which she, without breaking silence, became at times pale, carried her hands to her head in an attitude of inexpressible terror, which reproduced the same emotions in her as when becoming insane.

To this fixity of images upon the sensorium, as well as to the affinity of the intimate relation between subjective sensations and the external impressions which they produce, is also to be ascribed the purpose with which epileptics carry out, unconsciously, during their attacks, the ideas by which they were possessed at the moment of their invasion.

I need not insist upon this automatic phenomenon, so manifest especially in the attacks of *petit-mal*, or incomplete ones. I have already remarked that the nocturnal epileptic shows complete amnesia of that which he has done during his attack, however preserving a remembrance more or less clear of his frightful dreams. The reason of this amnesia is the exhaustion of the sensorium, through its extreme over-excitation, which causes a void through a defect of registration, breaking the continuity of those impressions which are indispensable to the existence of the memory. There are, nevertheless, some cases in which the hallucinatory idea, and the acts which are connected with it, being accomplished involuntarily, under the tyranny of the attack, do not vanish from the memory of the patient. But this recollection, ordinarily defective, appears as it were joined to the physical phenomena of the attack, and to those absurd ideas arising from the hallucinations which testify clearly to the insanity of the act, as in a very interesting example of the assassin of the curate of Loupe. The remembrance in such cases is the result of a continually fixed idea on the one hand, and on the other hand of correlative external impressions, received by those senses which remain active, and in the midst of which the instantaneous impulse intrudes itself, without forgetting, in the last place, the idea drawn from the narration of his own misdeeds, heard by the epi-

leptic. The series of impressions thus remaining unbroken, we then have that continuity of perception essential to the remembrance of past events.

I must again, by way of emphasizing the amnesia, mention a phenomenon which is too often overlooked, notwithstanding its great medico-legal importance. Many epileptics, after the criminal act of violence, (arising from the attack), continue under the mental trouble which has engendered the impulse, although without manifesting a symptom of insanity, and give with an appearance of reason, an explanation of the cause and circumstances of the misdeed of which they are accused, but after several hours and invariably after they have fallen into a profound and often stertorous sleep, these same individuals awaken without the slightest remembrance of what they have said or done. This arises from the fact that the epileptic mental crisis still existed when they were being interrogated, before sleep terminated the attack. This explains to us the contradiction and the disagreement between the responses made by the epileptic concerning his crime, during the first moments and when he is acting automatically, in an unconscious manner, and those which he gives later, after having regained the free exercise of his intelligence.

The psychical state which follows the nocturnal attacks, corresponds to the form of epileptic insanity which I have termed intermittent, and to which the larvated attacks belong. These crises present symptoms which one would be apt to confound with pathological somnambulism, and are far from being derived necessarily from nocturnal attacks, or from physical sources of a different nature. In truth, although often associated with these physical attacks, they do not essentially influence either the progress or the method of the psychical manifestations, which very often constitute the primitive causative element, to which all the other phenomena of this affection are subordinated. The object of this paper does not permit me to discuss this interesting subject, which I have considered in an extended manner in my studies upon epileptic insanity, based upon my own observations compared point by point with those of alienists of greatest authority. I have held that unconsciousness is the psychical element, without which, every convulsive paroxysm is only a simple epileptoid accident or a hyperkinetic symptom, of variable value in the cerebral disease, of which it is one of the external manifestations, without constituting a separate pathological species, as becomes evident by the progress and final issue of such convulsions, they being

never accompanied by a mental and instinctive disorder, pathognomonic of the evolution of epilepsy.

I have at the same time undertaken to present in all its aspects the part which unconscious cerebration occupies among the different psychic phenomena, which begin to unfold themselves from the simplest momentary vagary of an attack of *petit-mal* up to the prolonged automatism of epileptic mania, upon which unconsciousness imprints its seal.

We are wont to conclude, from the predominance of psychic phenomena and through lack of careful discrimination, that the mental manifestations of epilepsy exhibit themselves without any perceptible convulsive act, at all periods of their development. I have never met with any form of epileptic mania developed either in the midst or outside of physical paroxysms in which I have not detected at different times manifest convulsions of the pupils, either singly or oftener, with nystagmus, with trembling of the eyelids and lips, and sometimes with tremor of the arms. All these motor phenomena, delicate and limited principally to the iris and to those regions supplied by the bulbar nerves are observable with more frequency in the ecstatic form of epileptic mania. These convulsions repeat themselves at intervals of a minute or more, after the instantaneous explosion of maniacal violence, and I often ask myself whether the oculo-pupillary convulsion, which occur with such renewal in epileptic mania, may not equally be, as I think, the initial phenomena. However this may be, in the absence of clonic convulsions, extending to the limbs, these partial ones always present in the face, derive their origin from the source I have described. It is clear that the essential factors of an epileptic neurosis are unconciousness and convulsions, and the disordered mental condition forcibly produced by the two foregoing elements.

There is a point upon which my observations do not agree with those of Hughlings Jackson, who regards unconciousness, which he calls mental automatism, as a post-epileptic phenomenon. The premises implied in this supposition would be that the phenomena of mental automatism proceed essentially from the convulsive attack. On the contrary, now it would seem to be demonstrated that such parallel psychical phenomena constitute by themselves, without being necessarily combined with other symptoms, but one of the manifestations of that neurosis of which they are but the external expression. How can the automatism be post-epileptic in those many cases, wherein the mental crisis precedes by many days the convulsive diurnal or nocturnal attacks, which ter-

minate it abruptly. And how can one any more say that the *varieties* or the automatic conduct of the patient, which co-exist with the short manifestations of *petit-mal* or any incomplete attack and which are in some sort their expression, are in themselves *post-epileptic phenomena*?

In truth if we regard attentively the whole series of cerebral phenomena occurring during the evolution of the epileptic *paroxysm*, there will be found only the sleep and paralysis as the manifestations which can be properly called *post-epileptic phenomena*, since both the one and the other proceed from the exhaustion or fatigue caused by the excessive over-excitation of the nerve centers.

I have already indicated that the attacks followed by sleep, are never accompanied by immediate mental disturbance, because these attacks are completed. I will add now that the *grand-mal* (not an epileptiform attack followed by paralysis) terminates always in a sleep from which the patient awakens partially paralyzed, (benumbed). It is because we are inclined to regard the mental trouble as a necessary result of a somatic origin, to the latter of which is ascribed a development distinct from the characteristic complexion of the entire disease, that we mistake the true nature of certain epileptic manifestations, and this uncertainty has been carried to such a degree as to deny the existence of such a condition as that of an epileptic neurosis.

In order to complete this sketch it remains to describe the symptoms which precede an attack of nocturnal epilepsy. The diastole and acceleration of the pulse with the elevation of the central temperature on the eve of the attack have been already described. The other symptoms existing among my patients were the frequent jerking of the limbs, fainting fits and a sensation of general irritation or of a great physical prostration, headache, perspiration of the head and arms. A persistent hiccough in the case of one woman; in another a fetor of the perspiration; in another a very disagreeable taste in the mouth, and lastly an unsupportable odor of smoke was complained of the evening before the attack.

Other sensorial phenomena have been more or less frequent, above all when the nocturnal attack connected itself with the intellectual trouble. The frightful visions of a mystic or religious form, flashes of light in flames of fire, or of objects always red or bloody, *tinitus aurium*, noises, intolerable and tormenting, or voices insulting and threatening, were either seen or heard by these patients. One of these in a hospital saw, in the nocturnal attack, a mad dog who attacked him; a woman who was always

sober minded, had sensations as if a serpent was coiling about and strangling her, another beheld an angel, in the midst of flames, who lifted him up. A young farmer at Mahopac, leaving his chamber to go out to the stable, during one of his attacks, killed his horse with a sickle, imagining that he was struggling with robbers. They had believed him up to that time to be a somnambulist, but when watched by his family it was discovered that he had nocturnal attacks in which he wet his bed. Shortly after it became necessary to place him in an asylum.

Chambers who was convicted some years ago in Brooklyn, and sent to the Asylum at Auburn, killed an unknown person in a restaurant, believing himself to be pursued by men who were making grimaces at him and spitting in his face, hallucinations of so fixed a character that they pursued him in his sleep. The paricide Walworth heard, constantly repeated, a sudden noise as if a very large book fell flat upon the earth. On leaving the chamber where he had killed his father with several shots from a revolver, he saw a very old man with a long beard, who asked him "if the cap had exploded."

An epileptic in the hospital heard the bell and whistle of a locomotive approaching with great rapidity; a woman repeated with a very affrighted air, "Lippa, Lippa," the evening before her attacks, and, finally, another girl was in the habit of hiding herself without saying anything, but became very pale with extreme fear and agony depicted upon her face. The mania which precedes these nocturnal fits does not differ from that which follows them, aside from the psychic disorders and hallucinations of which I have spoken. Some patients regain suddenly an intellectual activity, with extraordinary lucidity, upon the approach of the nocturnal attack.

A young man whose father and mother belonged to a family of insane, was an imbecile, having always had nocturnal epilepsy since infancy. The evening of the attack he displayed a lucidity very remarkable, remembering past events and speaking with a loquacity and an intelligence which disappeared with the attack. His head and palate were unsymmetrical, and he was also a monorchid.

It remains for me to speak but a single word upon the responsibility which attaches to the criminal or disgraceful acts committed under the influence of nocturnal epilepsy. Under such circumstances the epileptic is assuredly irresponsible; the proper perception of our sentiments and actions constitutes consciousness with-

out which there is no responsibility. That epileptics, even in the most mild forms of mental attacks, and when they appear to act with intellectual integrity, are nevertheless destitute of a just appreciation of their external relations as well as of the inmost sentiments, and act altogether automatically, is a truth too palpable to need further remark. The phenomena, which I have just passed in review, deserve a more complete explanation than that which I have given them in this outline sketch of nocturnal epilepsy. I believe, however, that the facts upon which our considerations rest, and which have been submitted to you, justify the following general conclusions:

"The attacks of nocturnal epilepsy are more frequent in the female than in the male, and show themselves to be associated with vertigo, *petit-mal* or diurnal *grand-mal*, the first two often passing unperceived."

"The etiology of nocturnal epilepsy is essentially cerebral, and can be referred principally to hereditary predisposition, injuries to the head, alcoholism, syphilis, insolation and intense emotion.

"Incontinence of urine, lacerations of the tongue, the petechiæ upon the face and neck are not invariably constant phenomena, but when they exist they possess, above all the first, an undubitable pathological value.

"The sudden explosion of instantaneous maniacal excitement in sleep during the middle of the night, or the presence of mania upon waking in the morning, are signs of nocturnal epilepsy. If incontinence of urine be added, and a heredity predisposition to insanity, with aberration of character and impulsive tendencies exist, then one may, in any individual, positively diagnose the presence of epilepsy.

"The immediate irruption of the nocturnal attack is not favored by sleep, which in general re-establishes the intellectual integrity, when it terminates the attack of *grand-mal* and the mental crisis.

"Attacks of somnambulism are never of short duration, nor is there an explosion at their termination, characteristic of the nocturnal attacks of epilepsy, in the latter of which patients speak or execute automatic acts; nor again do the former manifest the invariable uniformity of the latter.

"The nocturnal attacks followed by paralysis are exempt from immediate, consecutive intellectual troubles.

"The nocturnal epileptic shows a complete amnesia of that which he did during the attack, although remembering more or less distinctly his hallucinations or frightful nightmare.

"Hallucinations of sight predominate in nocturnal epileptics, and their terrifying visions are nearly always of a red color or of fire.

"A nocturnal epileptic acts in an unconscious, automatic manner in his attack, and is not responsible for the criminal acts arising from this condition, but in such cases he is one of the most dangerous of lunatics and ought to be under observation in an asylum."

REVIEW OF AMERICAN ASYLUM REPORTS FOR 1877-78.

CONNECTICUT.

Report of the Retreat for the Insane at Hartford: 1878. Dr.
H. P. STEARNS.

There were in the Retreat, at date of last report, 132 patients. Admitted since, 78. Total, 210. Discharged recovered, 25. Improved, 13. Unimproved, 20. Died, 18. Total, 76. Remaining under treatment, 134. Daily average, 130.

The Doctor remarks that this closes the fifth year since his entrance upon the duties of Superintendent of the Retreat. He gives a short *resumé* of the improvements which have been made in the Institution during that period. The larger part of his report, however, is taken up with a description of his visits to institutions while making a trip abroad on account of illness in his family. In this he gives the recent tendencies in the erection of asylums in Scotland. He describes somewhat fully, the newest of these asylums, and in closing, makes the following remarks:

“In summing up, then, as to the tendency of change in buildings for the insane during the last five years in Scotland, I should say that in all the large metropolitan institutions which provide for both pay and pauper patients, and which are situated near large cities, the tendency has been decidedly towards an increase in number, and improvement in the character of the accommodations, and that this has been done at a large outlay of money. I know of no institutions in this country which will compare in extravagance of exterior architectural display with the Lenzie and Royal Glasgow Asylums. I know of none in which so much expense has been incurred to provide spacious large day and dining-rooms. I know of none where so much has been expended in painting, decorating, and ornamenting the walls and ceilings of

halls and large rooms. I know of none which equal them in the beauty and elegance of lawns and landscapes; and in all these directions the work is still going forward.

In reference to asylums for the country at large, there has been no special change in the policy in existence five years ago, which was to provide for each one or two or more counties, as the need might be, an asylum to accommodate about two hundred and fifty patients. * * * *

There has been no further movement towards boarding out of patients, as at Kennoway, in villages. Indeed, the working of that plan has been such that a petition was presented by the citizens of the village and the owners of property, to the effect that those already there be removed to asylums. It is thought that in the future, to a larger degree than in the past, public sentiment will be less tolerant of the public exhibition of eccentricities and abnormalities as manifested by those affected with disordered minds, and that the tendency will be strongly towards provision for all the insane in institutions used exclusively for that purpose, and by those having special qualifications for their care. * * *

I have said elsewhere that, during my former visit to the Scotch asylums, I was specially impressed with the following points in their management, viz.: 1. Occupation. 2. Non-restraint (so-called). 3. Personal freedom. 4. Pathological investigations. In reference to the subject of occupation for patients, my impression is that its importance has rather increased than diminished in the minds of those superintendents whom I met. * * * *

In reference to the second point, non-restraint (so-called), I presume no one would admit any change of opinion during the last five years; but I noticed a great readiness on the part of every superintendent to say that he would use mechanical restraint in certain cases. And the opinion was advanced that Dr. Bucknill, in his recent letters on the subject, had been extreme in his views and statements, at least so far as relates to Scotch asylums; that all or nearly all superintendents would not hesitate to use mechanical restraint in extreme cases; that the principal difference between the practice, in this respect, of Scotch and American superintendents, is as to *frequency* of use—Americans use it in many cases where the Scotch would avoid it.

In regard to the third point, *personal freedom*, there has been little change, so far as I could learn, the opinion being held that much more than was formerly supposed possible, was practicable in many asylums. I did not find the system of *unlocked doors* in

operation in any of the metropolitan asylums, except in a few halls. I believe it has made more progress in some asylums situated in the country.

The prevalence of *pathological investigations* in asylums, from the nature of the case, must depend entirely upon the special qualifications of the superintendent and his assistants. No one, however, would think of selecting a superintendent simply because he possessed qualifications for this work. Many most valuable officers know little or nothing about the practical detail of such investigations, and less still as to practical results from them. The successor of Dr. Fraser, at Cupar, is much interested in them. I did not learn of their being specially prosecuted elsewhere.

I believe I have, on a former occasion, expressed my opinion as to the importance of all the above subjects. If it be worth while to say anything more, I would simply add that it seems to me important to avoid hobbies in the care of the insane as well as in other matters—that every superintendent must be left free to work out such measures, in the care and treatment of the patients, as in his judgment may be best. We accord him this privilege in reference to his selections of medicines, and I know of no reason why we should not in other respects. One man may get on successfully with the use of less restraint than another. One man may grant a larger degree of freedom, or give passes to a larger number of persons without the loss of patients than another, and the same is true in reference to the other points; and while it is right that the importance of certain lines of treatment should be advocated, and even urged, yet the largest degree of liberty should be granted in the development of individual capacities. It seems to me a great abuse of non-restraint to carry it so far as to sacrifice a patient or his attendant to the idea, or to chloroform a patient rather than use a linen waistcoat, as one officer in an English asylum told me he was in the habit of doing.

It does not seem to me wise to expect superintendents to have unlocked doors in their asylums unless they may be able to do so, and still account for their patients, without large expense in returning them to the asylum. It appears to me important to bear in mind that the larger number of our patients have become such *while at home*, with plenty to do, and not unfrequently because they have had so much to do; and also, while having full personal freedom to go and come when and where they desired, with unlocked doors, and surrounded by all that loving friends could do for them. And further, that, inasmuch as *change* is now

and has long been considered one of the most important elements in the treatment of the insane, it *may* be of the first importance that it extend so as to affect, not only the surroundings, but also occupation and personal freedom."

MASSACHUSETTS:

Report of the Boston Lunatic Hospital: 1878. Dr. CLEMENT A. WALKER.

There were in the Hospital, at date of last report, 202 patients. Admitted since, 44. Total, 246. Discharged recovered, 18. Improved, 5. Unimproved, 10. Died, 13. Total, 46. Remaining under treatment, 200.

Twenty-third Annual Report of the State Lunatic Hospital at Northampton: 1878. Dr. PLINY EARLE.

There were in the Hospital, at date of last report, 475 patients. Admitted since, 76. Total, 551. Discharged recovered, 26. Improved, 44. Unimproved, 29. Died, 23. Total, 122. Remaining under treatment, 429.

NEW YORK:

Report of the Bloomingdale Asylum for 1878. Dr. CHARLES H. NICHOLS.

There were in the Asylum, at date of last report, 162 patients. Admitted since, 109. Total, 271. Discharged recovered, 25. Improved, 43. Unimproved, 6. Died, 9. Total, 83. Remaining under treatment, 188.

The report shows a successful year in the history of the Asylum, the recoveries being largely increased, while the number of deaths was unusually small. Material additions were made, during this year, to the means of diversion and exercise.

The current repairs have been numerous and important, and the permanent improvements have been diligently prosecuted. A building for an assembly-room,

kitchen, store and fan-rooms has been erected; and the John C. Green, Memorial Building, intended to form a section of the Asylum edifice, was so far advanced that it probably would be occupied by the first of July.

Report of the State Homœopathic Asylum for the Insane, Middletown: 1878. Dr. S. H. TALCOTT.

There were in the Asylum, at the date of last report, 128 patients. Admitted since, 156. Total, 284. Discharged recovered, 61. Improved, 16. Unimproved, 43. Died, 15. Not insane, 1. Eloped, 2. Total, 138. Remaining under treatment, 146.

The Institution continues to apply the homœopathic law of cure, and to use the remedies of that school of practice. Under these conditions is claimed a success greater than that attained by the ordinary mode of treatment. The percentage of recoveries on the whole number *discharged* is said to be 44.2; and, throwing out from the admission list cases of more than two years' standing, the percentage of recoveries rises to 51.26. Preference is given in the employment of remedies which have stood the test of time and experience, though a few new ones have been used; and it is reported with gratifying results. The question of "potencies" is also treated of. The subject of restraint is said to have received careful attention from Dr. Paine, an assistant physician, who has devised a new form of camisole, of heavy twine, with large meshes, with sleeves of light but strong canvass. Restraint breeches have also been used, in cases of masturbation. They are made of strong canvass, and, in case of men, with a block tin semi-cylindrical recepticle for the parts to be protected, firmly riveted thereto. In case of women a somewhat different device has been employed. For feeding, the soft rubber catheter of Nelaton has been

used as a nasal tube, and is recommended as the best instrument for forcible alimentation. An ordinary Davidson's syringe inserted in the catheter provides all the force required.

Report of the Marshall Infirmary, Troy: 1878. Dr. JOSEPH D. LOMAX.

There were in the Infirmary, at date of last report, 102 patients. Admitted since, 60. Total, 162. Discharged recovered, 4. Improved, 19. Unimproved, 20. Died, 9. Total, 52. Remaining under treatment, 110.

PENNSYLVANIA:

Report of the State Lunatic Hospital, Harrisburg: 1878. Dr. JOHN CUEWEN.

There were in the Asylum, at date of last report, 447 patients. Admitted since, 148. Total, 595. Discharged recovered, 30. Improved, 45. Unimproved, 64. Died, 30. Total, 169. Remaining under treatment, 426.

Report of the State Hospital for the Insane, Danville: 1877-78. Dr. S. S. SCHULTZ.

There were in the Hospital, at date of last report, 323 patients. Admitted since, 140. Total, 463. Discharged recovered, 19. Improved, 29. Unimproved, 31. Died, 23. Not insane, 1. Total, 103. Remaining under treatment, 360.

In his remarks the Doctor shows some of the obstacles in the way of the timely care and treatment of patients in institutions for the insane, which account, in part at least, for the great accumulation, of the chronic cases. He also makes some suggestions looking to the removal of these obstacles, and speaks of the necessary demands upon an institution in the way of furnishing

the most advanced means known to science, which are likely to prove beneficial in the care and treatment of the insane.

Annual Report of the Commissioners and Building Superintendent of the State Hospital for the Insane, Warren: 1878.

They report that if funds are furnished by the State, as needed, they will be able to push forward the work so that parts of the Hospital will be ready for the reception of patients toward the close of the year 1879. They also report that the work has been well and economically done, and that it will fall within the original estimate.

Sixty-Second Annual Report of the Asylum for the Relief of Persons deprived of the Use of their Reason, (Frankford). Dr. JOHN C. HALL: 1878.

There were remaining in the Asylum, at date of last report, 84 patients. Admitted since, 37. Total, 121. Discharged recovered, 13. Improved, 7. Unimproved, 15. Died, 4. Total, 39. Total remaining under treatment, 82.

The work of improving the buildings, which was commenced some years ago, has been continued, and the Asylum is thus enabled to extend its means of usefulness. The great want of the Institution is stated to be that of a more ample fund for the assistance of those who are unable to pay the minimum rate of board. The importance of establishing free beds for the treatment of recent cases, of the indigent class, is strongly urged. The practice of deceiving patients, when bringing them to the asylum, is discountenanced, upon the ground that it awakens in the mind of the patient a feeling of mistrust, and is likely to retard recovery by a want of confidence in those to whose charge he is committed.

Report of the Pennsylvania Hospital for the Insane: 1878. Dr.
THOMAS S. KIRKBRIDE.

There were in the Hospital, at date of last report, 415 patients. Admitted since, 204. Total, 619. Discharged recovered, 91. Improved, 55. Unimproved, 28. Died, 39. Total, 213. Remaining under treatment, 406.

The Doctor makes some judicious remarks regarding the causation of insanity, in all the cases admitted to the Institution—7,867. At the head of the list stands "Ill-health;" next in order, "Intemperance," intimately connected therewith cases of "Use of Opium and its Preparations." Seventeen cases are attributed to the use of "Tobacco." "Grief and Mental Anxiety" are recognized as efficient causes in a large number of cases, while 105 are set down to "Injury to the Head." In other tables are presented the forms, the duration of the disease, the number of attacks, and the condition of those discharged and died. The remarks upon these various subjects will well repay careful perusal.

For many years it has been the custom to furnish evening entertainments, in which a large proportion of the patients could participate, every evening during nine months of the year. It is said that nothing has been done, for the happiness of patients, which has been more satisfactory in its results. The most prominent of the means used at these evening's entertainments has been the exhibition of photographic pictures. These have been interspersed with concerts, readings and lectures. The report closes with an account of the improvements.

MARYLAND:

Report of the Maryland Hospital for the Insane: 1878. Dr.
RICHARD GUNDRY.

There were in the Hospital, at date of last report, 281 patients. Admitted since, 153. Total, 434. Discharged recovered, 35. Improved, 39. Unimproved, 4. Died, 34. Total, 132. Remaining, 302.

The report of the Superintendent, Dr. Gundry, was made after a residence of only five months. He notes, as an interesting item in pathological investigations, ophthalmic examinations, which have been continued for some eighteen months, by Dr. Joseph A. White, of Baltimore. The list now includes a total of three hundred and twelve cases observed. Many changes and improvements upon the buildings and grounds of the Institution, and especially in the method of heating are detailed.

Thirty-Sixth Report of the Mount Hope Retreat: 1878. Dr.
WILLIAM H. STOKES.

There were in the Retreat, at date of last report, 314 patients. Admitted since, 131. Total, 445. Discharged recovered, 46. Improved, 26. Unimproved, 4. Died, 29. Total, 105. Remaining under treatment, 340.

WASHINGTON, D. C.:

Report of the Government Hospital for the Insane: 1878. Dr.
W. W. GODDING.

There were in the Hospital, at date of last report, 765 patients. Admitted since, 182. Total, 947. Discharged recovered, 60. Improved, 41. Unimproved, 7. Died, 46. Total, 154. Remaining under treatment, 793.

The Superintendent complains of the over-crowding which has been a notable feature during the year. There

are at present more than eight hundred inmates, with accommodations for five hundred and sixty-three. In view of this condition, an appropriation is asked of Congress for \$300,000, for the extension of the accommodations of the Hospital; \$30,000 for the erection of suitable structures for the accommodation of two hundred and fifty patients of the chronic class. Other amounts are asked for the specific purposes fully explained in the report.

VIRGINIA :

Report of the Eastern Lunatic Asylum : 1878. Dr. HENRY BLACK.

There were in the Asylum, at date of last report, 302 patients. Admitted since, 74. Total, 376. Discharged recovered, 29. Improved, 3. Died, 28. Total, 60. Remaining under treatment, 316.

The subject of the care of the "harmless incurables," as they are called, is again presented for consideration, and the suggestion is renewed to place a portion of this class among their friends, or with other suitable families, the State paying a proper sum for their maintenance. The experience of some of the other States, in discharging to their friends certain of the chronic class, is quoted in confirmation of this view. The great obstacle which has to be contended with in the Institution is the accumulation of the chronic insane. The pressure for the admission of cases is great, and the applications far in advance of the accommodations. Every effort is made, however, to give admission to the recent cases. The Doctor also renews his suggestions regarding granting furloughs to patients. He recommends the increase of the water supply, and other necessary improvements in the Institution.

Report of the Central Lunatic Asylum (for Colored Insane):
1878. DR. RANDOLPH BARKSDALE.

There were in the Asylum, at the date of last report, 229 patients. Admitted since, 61. Total, 290. Discharged recovered, 24. Improved, 1. Died, 21. Total, 46. Remaining under treatment, 244.

The lease of the property on which the Asylum is located, will expire at the close of the present year. This brings into prominence, the question of what shall be done for the treatment of the colored insane. Several propositions have been made. First, to purchase another site, and erect new buildings; another, to purchase the ground under the right of eminent domain; a third, and which seems to be the most practicable, to re-lease the present property and then enlarge the capacity by additional buildings. A strong appeal is made in behalf of the colored insane, for the preparation by the State, of additional means for their care.

Report of the Virginia Western Lunatic Asylum: 1877-78.
DR. ROBERT F. BALDWIN.

There were in the Asylum, at the date of last report, 361 patients. Admitted since, 121. Total 482. Discharged recovered, 25. Improved, 11. Unimproved, 3. Not insane, 1. Eloped, 2. Died, 17. Total, 59. Remaining under treatment, 423.

The most interesting, and to the Institution important event recorded, is the opening of a new building, in May, 1878. It is designed for females, and accommodates forty patients. Much is claimed for it when it is said, that "it is probably the cheapest that has ever been erected in the United States, for the insane." The cost was \$333 *per capita*, which was \$67 below the estimate on which the appropriation for its erection was based. Another section of the report treats of the

condition of the chronic insane who have been received into the Institution from the jails and from their own homes under a new provision of the law. Some of them were in a very sad and unfortunate condition, clearly showing the need of intelligent care in an asylum. The report closes with an enumeration of the various improvements which have been made during the year.

WEST VIRGINIA :

Thirteenth Biennial Report of the West Virginia Hospital for the Insane : 1877-78. DR. T. B. CAMDEN.

There were in the Hospital, at date of last report, 417 patients. Admitted since, 57. Total, 474. Discharged recovered, 29. Improved, 5. Unimproved, 5. Died, 20. Total, 59. Remaining under treatment, 415.

The report is largely taken up with a statement of the wants of the Institution. Foremost is the need of additional accommodation, as four hundred and fifteen patients are already overcrowding the space designed for three hundred. To erect a structure capable of accommodating one hundred patients an appropriation of \$95,000 is asked. A further sum of \$1,500 is required to put in a fan, and provide facilities for forced ventilation. No means have been provided as yet for protecting the building against fire. Five hundred dollars only are required to make connection by means of hose, fire-plugs, etc., with the reservoir, which is one hundred and ten feet above the Hospital buildings. The record of improvements upon the grounds and buildings is a creditable one, and these have been accomplished with a comparatively small outlay of money.

NORTH CAROLINA :

Report of the Insane Asylum of North Carolina: 1878. Dr.
EUGENE GRISSOM.

There were in the Asylum, at date of last report, 278 patients. Admitted since, 42. Total, 320. Discharged recovered, 14. Improved, 11. Unimproved, 10. Died, 19. Total, 54. Remaining under treatment, 266.

Report of the Superintendent of the North Carolina Insane Asylum: April 1, 1879.

This is a special report, made to the Directors, portraying the results likely to follow from the limited appropriation made by the Legislature for the current expenses of the next fiscal year. The sum of \$70,000, which had been found necessary during preceding years, was asked for, but only \$50,000, an amount nearly one-third less, was granted. This reduction in the appropriation, it is claimed, must result in lowering the standard of care and treatment in the Institution to a point which will seriously impair its usefulness as a hospital for the cure, or even for the proper care of the insane.

SOUTH CAROLINA :

Fifty-fifth Report of the South Carolina Lunatic Asylum: 1878.
Dr. P. E. GRIFFIN.

There were in the Asylum, at date of last report, 306 patients. Admitted since, 151. Total, 457. Discharged recovered, 49. Improved, 11. Unimproved, 6. On trial, 8. Died, 52. Total, 126. Remaining under treatment, 331.

We are glad to be able to record that the finances of the Institution are now reported to be upon a sound and substantial basis. "The Institution begins the new

year without owing one dollar, and with a credit so good that merchants have often to be importuned for their bills." This is especially gratifying, in view of the fact that the Institution has been so long laboring under financial embarrassments which seemed almost insuperable, favorable and fortunate, as its past has been unfortunate. The Superintendent presents an exhibit of a large number of improvements made with economy of expenditure from the current funds. He advises a revision of the lunacy laws, and makes suggestions looking to the increase of accommodations for the large number of insane demanding care and treatment in an asylum.

ALABAMA :

Eighteenth Annual Report of the Alabama Insane Hospital:
1878. Dr. PETER BRYCE.

There were in the Hospital, at date of last report, 379 patients. Admitted since, 87. Total, 466. Discharged recovered, 33. Improved, 7. Unimproved, 3. Died, 20. Total, 63. Remaining under treatment, 403.

In his report, under general observations, Dr. Bryce has treated of insanity under the special subjects of "What is Insanity?" "Causes of Insanity;" "Hereditary Transmission;" "Alcoholism;" "Prevention of Insanity;" and other interesting topics, in a scientific manner, and yet one which will convey to the people the information they desire, and tend to their enlightenment. The affairs of the Hospital are represented as being in a healthy condition, and show the careful oversight of one devoted to his special labor.

TEXAS:

Report of the State Lunatic Asylum: 1877-78. Dr. D. R. WALLACE.

There were in the Asylum, at date of last report, 230 patients. Admitted since, 142. Total, 372. Discharged recovered, 58. Improved, 21. Unimproved, 4. Died, 12. Escaped, 2. Total, 97. Remaining under treatment, 275.

TENNESSEE:

Twelfth Biennial Report of the Tennessee Hospital for the Insane: 1878. Dr. JOHN H. CALLENDER.

There were in the Asylum, at date of last report, 388 patients. Admitted since, 215. Total, 603. Discharged recovered, 94. Improved, 61. Unimproved, 11. Escaped, 6. Died, 55. Total, 227. Remaining under treatment, 376.

The Doctor mentions as notable the unusually large preponderance of male over female patients, the excess being fifty. Also, the marked decrease of colored insane admitted. He indulges in some interesting remarks concerning the restoration of the insane, and the varying standards of recovery in different institutions.

KENTUCKY:

Fifty-Fourth Annual Report of the Eastern Kentucky Lunatic Asylum, (Lexington): 1878. Dr. R. C. CHENAULT.

There were in the Asylum, at date of last report, 566 patients. Admitted since, 150. Total, 716. Discharged recovered, 63. Discharged under laws of 1876 and 1878, 64. Removed, 17. Died, 39. Escaped, 1. Total, 184. Remaining under treatment, 532.

Report of the Central Lunatic Asylum, (Anchorage): 1878. Dr. C. C. FORBES.

There were in the Asylum, at date of last report, 314 patients. Admitted since, 102. Total, 416. Discharged recovered, 25. Improved, 7. Unimproved, 1. Escaped, 1. Under special law, 8. Died, 33. Total, 75. Remaining under treatment, 341.

Report of the Western Kentucky Lunatic Asylum, (Hopkinsville): 1878. Dr. JAMES RODMAN.

There were in the Asylum, at date of last report, 348 patients. Admitted since, 86. Total, 433. Discharged recovered, 28. Improved, 5. Unimproved, 4. Eloped, 1. Died, 14. Total, 52. Remaining under treatment, 381.

MISSOURI:

Thirteenth Biennial Report of Lunatic Asylum, No. I, (Fulton): 1877-78. Dr. T. H. R. SMITH.

There were in the Asylum, at date of last report, 350 patients. Admitted since, 337. Total, 587. Discharged recovered, 171. Improved, 18. Unimproved, 24. Died, 64. Total, 277. Remaining under treatment, 410.

It is reported that unsurpassed prosperity and success have crowned the labors of another biennial period. The Institution has been full, and many of the wards overcrowded. Appeals for admission have been urgent and in recent cases always yielded to. The percentage of recoveries to the admissions has been about fifty-one, while the number of deaths has been less than during the previous biennial period. In the financial management the most rigid economy has been practiced. The needs of the Institution the coming year, together with the amount of money necessary to supply them, are stated at length.

Biennial Report of the State Lunatic Asylum, No. II, (St. Joseph): 1878. Dr. GEORGE C. CATLETT.

There were in the Asylum, at date of last report, 150 patients. Admitted since, 286. Total, 436. Discharged recovered, 105. Improved, 54. Unimproved, 53. Escaped, 1. Died, 37. Total, 220. Remaining under treatment, 216.

The report is quite a lengthy one, and treats of the "Causes of Insanity," "Treatment of Insanity," "Increased Accommodations for the Insane," "Resolutions of the Association of Superintendents of Asylums for the Insane." Mention is made of repairs and improvements of the biennial period, and of recommendations to supply the present wants of the Institution. It also contains an appendix, the statutes of the State, with the general laws regulating the asylums.

Report of the Committee to examine into the origin and extent of the late conflagration at the State Lunatic Asylum, No. II.

On the 25th of January, 1879, this Institution was destroyed by fire. The report of the Committee shows that it commenced in the dry room located over the boiler, and thence spread rapidly, till the whole building was consumed. The fire was discovered about 1 o'clock P. M. The patients were safely removed, and there was no loss of life. All the combustible portion of the building, together with most of the furniture, was consumed. The outer, and some of the cross walls can be utilized by proper repairs. It is estimated that to replace the buildings as before will cost \$89,000. The authorities have placed the court house of Buchanan County at the disposal of the Managers of the Asylum, till such time as the Institution can be permanently rebuilt.

Ninth Annual Report of the St. Louis Insane Asylum: 1878.
Dr. N. DE V. HOWARD.

There were in the Asylum, at date of last report, 338 patients. Admitted since, 148. Total, 486. Discharged recovered, 42. Improved, 20. Unimproved, 11. Sober, 1. Eloped, 2. Transferred, 82. Died, 19. Total, 178. Remaining under treatment, 308.

OHIO:

Nineteenth Annual Report of the Longview Asylum: 1878. Dr.
C. A. MILLER.

There were in the Asylum, at date of last report, 646 patients. Admitted since, 188. Total, 834. Discharged recovered, 67. Improved, 41. Unimproved, 17. Eloped, 1. Died, 48. Total, 174. Remaining under treatment, 660.

Twenty-fourth Report of the Cleveland Asylum for the Insane:
1878. Dr. J. STRONG.

There were in the Asylum, at date of last report, 551 patients. Admitted since, 219. Total, 770. Discharged recovered, 84. Improved, 40. Unimproved, 26. Not insane, 1. Died, 19. Total, 170. Remaining under treatment, 600.

Dr. Strong treats of the subject of causation, and explains the influences of certain causes upon the blood supply of the brain. Among the causes worthy of special notice is "Alcoholic Stimulants," "Poverty and Intemperance." Some hints are given regarding moral causation. Though the author would make the distinction between physical and moral causes, he regards it as more apparent than real, inasmuch as whatever may be the cause of insanity, whether it come from the moral or physical side, the result is substantially the same. He speaks of the in-

crease of lunacy, but does not attribute this, as is often done, to the advanced civilization of the day, but to the excesses in which it abounds. The elements productive of insanity are found largely in the intensity of life. He notes the existence of an epidemic of suicide in this country, and finds its logical cause in the commercial and financial depression of the times. Remarks on "the Care of the Chronic Insane," "Epileptics," "Criminal Insane," and "Treatment of Insanity," fill out a long and very interesting report.

Twenty-fourth Report of the Dayton Asylum for the Insane:
1878. Dr. D. A. MORSE.

There were in the Asylum, at date of last report, 438 patients. Admitted since, 259. Total, 697. Discharged recovered, 57. Improved, 25. Unimproved, 8. Transferred, 1. Died, 39. Total, 130. Remaining under treatment, 567.

The report of Dr. Morse is largely occupied with the statement to his Board, of his method of management in detail and of his views regarding the proper conduct of an institution. His remarks are pertinent and stated with directness and positiveness that carry conviction. His suggestions are practical and exhibit an intimate knowledge of the minute affairs of his Institution.

Fifth Report of the Athens Asylum for Insane: 1878. Dr. P. H. CLARKE.

There were in the Asylum, at date of last report, 549 patients. Admitted since, 212. Total, 761. Discharged recovered, 97. Improved, 16. Unimproved, 36. Transferred, 1. Died, 37. Total, 187. Remaining under treatment, 574.

ILLINOIS:

Sixteenth Biennial Report of the Illinois Central Hospital for Insane, Jacksonville: 1877-78. Dr. H. F. CARRIEL.

There were in the Hospital, at date of last report, September 30, 1876, 466 patients. Admitted since, 609. Total, 1,075. Discharged recovered, 167. Improved, 220. Unimproved, 69. Eloped, 11. Died, 74. Total, 541. Remaining under treatment, 534.

Dr. Carriel reports the progress of the work of erecting additional wings to the Hospital. They are each three stories high, containing one ward in each story capable of accommodating twenty-five patients. These have all been put up in the most economical manner. The whole cost of buildings and furniture to accommodate six hundred patients, it is claimed has been made within \$600,000. Many improvements and repairs have been made during the period covered by the report. The subject of commitment of the insane receives attention, and the disadvantages and defects of the law which requires trial by jury to decide the question of insanity before commitment, are fully pointed out. These are the same as were brought forward by the opponents of the bill at the time of its passage.

It is now recommended to return to the plan, now generally adopted in different States, of requiring the sworn certificates of two physicians. Under this legal provision in other States, it is believed "the personal liberty of individuals is as safe to-day as in the State of Illinois, and no personal injury or positive harm is done, as is often the case under our law." The disadvantages of treating insane criminals in general hospitals for the insane, are fully pointed out.

Third Biennial Report of the Illinois Southern Hospital for the Insane, Anna: 1877-1878. Dr. HORACE WARDNER.

There were in the Hospital, at the date of last report, 241 patients. Admitted since, 400. Total, 641. Discharged recovered, 85. Improved, 31. Unimproved, 23. Not insane, 1. Died, 43. Remaining under treatment, 458.

Dr. A. T. Barnes, the former Superintendent, tendered his resignation on the 1st of July, 1878. He was succeeded by Dr. Horace Wardner, the present incumbent, and the report is the joint work of these two gentlemen. It aims to give a statement of the financial affairs of the Institution, as also of the demands for improvements and repairs, with an account of such as have been made during the biennial period.

Fifth Biennial Report of the Illinois Northern Hospital for the Insane, Elgin: 1877-78. Dr. E. A. KILBOURNE.

There were in the Hospital, at date of last report, 463 patients. Admitted since, 413. Total, 876. Discharged recovered, 79. Improved, 102. Unimproved, 115. Died, 54. Remaining under treatment, 525.

An account in detail of the manner in which the appropriations granted by the last Assembly were expended, occupies a large share of the report. A description is given of the cottages which were occupied during the past year by patients of the quiet, chronic insane class. They have not been in use sufficiently long to enable an opinion to be formed regarding their actual utility and advantages, if indeed they exist. The subject of criminal insane is also passed in review. An urgent appeal is made for funds with which to establish a pathological laboratory.

MICHIGAN :

Report of the Board of Commissioners of the Eastern Michigan Asylum for the Insane, Pontiac : 1877-78.

This report of the Commissioners, including that of the Superintendent of construction, describes in full the amount expended in the erection and furnishing of the Institution, and contains also an itemized inventory of all the articles purchased in fitting up the Institution for occupancy. The various methods of ventilation, heating, sewerage, &c., adopted, are fully described and illustrated by drawings, which show that much care has been taken to adapt to practical use the most recent and advanced views regarding these subjects. A list of proposals for the construction of the Asylum and for all the various articles of furnishing, in which those finally adopted are indicated with prices attached, concludes the report, which will be of special interest to all who are building and furnishing Institutions.

Report of the Eastern Michigan Asylum, Pontiac : 1878. Dr. HENRY M. HURD.

There were admitted during the two months of August and September, 313 patients. Discharged recovered, 2. Improved, 1. Unimproved, 1. Died, 3. Total, 7. Remaining under treatment, 306.

The Institution was opened for the reception of patients on the 1st of August, 1878. More than two hundred of the patients were transferred from the older institution at Kalamazoo. In this, the first report, Dr. Hurd states the objects for which the Asylum was erected, and in doing this makes some very judicious and pertinent remarks regarding the advantages of the removal of patients to asylums, and of the regularity of life and of treatment therein. He gives the principle of classification in asylums and the advantages to

the patient of the separation permissible by the wards of an institution. He explains the methods of treatment of a patient recently admitted to the wards, of seclusion, restraint, exercise, diet and the use of remedies. He also shows the benefit of the same methods when applied to the more chronic class, and how much can be accomplished for their aid and comfort. He believes that it is within the scope of the Institution to accumulate and place upon record "such therapeutic, clinical and pathological facts as may tend to throw light upon the subject of insanity" and requests the Trustees to provide for the purchase of such instruments as may enable the officers to utilize the opportunities placed within their reach. Another object of the Asylum as stated is to "diffuse a more general knowledge of mental disease and its causes, in order that the public may more fully appreciate the gravity of the affliction and take effective measures to prevent its development where any predisposition exists." He recommends for the treatment of epileptics the erection of new wards specially adapted to their wants.

Report of the Michigan Asylum for the Insane, Kalamazoo:
1877-78. DR. GEO. C. PALMER.

There were in the Asylum, at date of last report, 618 patients. Admitted since, 519. Total, 1,137. Discharged recovered, 117. Improved, 199. Unimproved, 243. Died, 81. Total, 640. Remaining under treatment, 497.

Dr. Palmer treats of the character of the patients who have been admitted to the Asylum as regards the chronicity of disease which renders the large proportion of them almost hopeless from the beginning. The great percentage are asthenic in character and apt to assume the form of melancholia. On the subject of heredity cases are divided into three divisions.

"*First.* Those whose inherited tendencies are not recognized by any striking mental characteristics or physical defects."

"*Second.* Those persons to whom the transmission is more direct, and in whom the deviation from the normal type is greater, are characterized by mental peculiarities, and frequently by physical defects."

"*Third.* The most hopeless and unfortunate of all are usually the offspring of intemperate and diseased parents. They are generally defective both mentally and physically."

An interesting fact is stated that nearly ten per cent of all cases admitted were suffering from epilepsy, paralysis, or serious constitutional defects.

During the biennial period there has been an entire change of medical staff. Dr. Palmer has been promoted to the position of Superintendent in place of Dr. Van Deusen, and Dr. Hurd has accepted a like position in the new Asylum at Pontiac.

WISCONSIN:

Nineteenth Report of the Wisconsin Hospital for the Insane, Mendota: 1878. Dr. D. F. BOUGHTON.

There were in the Hospital, at date of last report, 382 patients. Admitted since, 148. Total, 530. Discharged recovered, 35. Improved, 36. Unimproved, 36. Died, 30. Total, 137. Remaining under treatment, 393.

After stating the wants of the Institution and giving the expenditure of the appropriations, the cost of maintenance in asylums is discussed, and a tabular statement giving the cost per patient in institutions of various sizes is made up. The object is to show that the cost per week is diminished by having a large number of patients under care.

"Two things, are, I think, clearly proved by this showing. First, the cost per capita of a hospital decreases as the population increases. Second, considering our population and the unavoidable cost of fuel and labor, we have no reason to feel ashamed in comparing cost with other hospitals."

Sixth Annual Report of the Northern Hospital for the Insane for the State of Wisconsin: 1878. Dr. W. KEMPSTER.

There were in the Hospital, at date of last report, 537 patients. Admitted since, 190. Total, 727. Discharged recovered, 55. Improved, 35. Unimproved, 37. Sober, 3. Not insane, 1. Died, 37. Remaining under treatment, 559. Daily average, 543.

The usual analysis of the admissions is given in the report. In thirty per cent of them there was an hereditary tendency to the disease, while in thirty-four per cent there was an inheritance of some other form of disease, independent of insanity. The rate of mortality is a trifle over five per cent on the whole number under treatment. The financial affairs of the Asylum are reported as in a very healthy condition, and the estimates for the year are made upon the basis of \$4.25 per week, instead of \$4.50.

The Superintendent has this year treated of the causes of insanity. They are found to consist of two kinds, physical and moral, and insanity is the evidence of degeneracy. He is inclined to attribute more of this to the moral nature than is frequently done, and though he recognizes truth in the statement, he is not ready to adopt with Maudsley, as a truism that crime is a disease. Crime is acknowledged to be "a perversion from a moral life, and unless checked, unless the moral nature is braced up by education, it may eventually become so perverted as to induce degeneration of

body and consequent mental impairment." It is his opinion, and of this there can be little question, that the "germs of the disease are laid in the very early career of childhood, when the foundations of character are being formed, and when surrounding influences have a powerful effect upon the individual." A very marked instance of this may be seen in the faulty training of children of highly nervous organization, in the lack of control of emotions, in the giving way to their humors and wishes, oftentimes in the neglect of the laws of hygiene as regards diet and sleep, whose observance are only the more necessary in the case of an unbalanced, nervous organization. "In the matter of education of those who inherit a tendency to brain disorder, there is much to be said." Then follows a criticism upon the present system of education in our common schools.

"Disturbance of the circulation of blood within the brain, from whatever source, is a most frequent causation of insanity." Such disturbance is effected by giving way to the emotions, and especially to anger. He concludes after enumerating several other causes of the same general nature, by saying that "many of the causes are within the power of the individual to check; that man possesses a certain amount of control over himself, which he may exert for his own good, failing to exert it, the consequences are bad, and he not only suffers a penalty himself, but gives an impetus in the wrong direction to those who are unfortunate enough to be his descendants."

MINNESOTA:

Twelfth Annual Report Minnesota State Hospital for the Insane:
Dr. C. K. BARTLETT.

There were in the Asylum, at date of last report, 579 patients. Admitted since, 249. Total, 828. Dis-

charged recovered, 53. Improved, 70. Unimproved, 10. Died, 35. Total, 168. Remaining under treatment, 660.

The report of the Trustees of the Second Hospital for the Insane is also included within the same covers. This is located in Rochester, and is designated as the Second Hospital for Insane. It was originally established as an inebriate asylum. With some changes and additions the buildings have been arranged to accommodate between eighty and ninety men patients. This affords some relief to the Hospital at St. Peter, but even with this addition, before another meeting of the Legislature, both hospitals will be taxed to the utmost. The report closes with a compendium of the statutory provisions, relating to the insane, in the State of Minnesota.

KANSAS :

Biennial Report of the State Insane Asylum at Ossawatimie : 1877-8. Dr. A. P. TENNEY. And Report of Board of Commissioners of the Topeka Asylum.

There were in the Asylum, at date of last report, 155 patients. Admitted since, 205. Total, 360. Discharged recovered, 59. Improved, 20. Unimproved, 17. Elopel, 3. Not insane, 1. Died, 30.

The Commissioners report progress in the Asylum at Topeka. They give in detail the amounts paid out on certain contracts, which relate to the "erection of cottages," "of temporary engine house," "plumbing," "steam heating." It is not possible to get an accurate idea of the condition of the Institution from the report made.

NEBRASKA :

Biennial Report of the Nebraska Hospital for the Insane:
1876-78. H. P. MATTHEWSON.

There were in the Hospital, at date of last report, 93 patients. Admitted since, 135. Total, 228. Discharged recovered, 62. Improved, 17. Unimproved, 3. Died, 24. Escaped, 2. Total, 108. Remaining under treatment, 120.

OREGON :

Biennial Report of the Oregon State Asylum: 1877-78. Dr.
J. C. HAWTHORNE.

There were in the Hospital, at date of last report, 218 patients. Admitted since, 193. Total, 411. Discharged recovered, 80. Improved, 41. Unimproved, 7. Escaped, 2. Died, 46. Total, 176. Remaining under treatment, 235.

The subject of early treatment of the insane is treated of at considerable length. Views presented by other superintendents are quoted to enforce the sentiments and belief of the author, as to the duty of the State to care for all its insane wards, and also of friends to give to their insane every chance afforded by early treatment in an asylum. The project of building a State asylum for the insane is discussed in this report. As a preliminary step, and to enlighten the authorities, Dr. Hawthorne has presented a table, showing the total cost of construction, the per capita expense, and the cost per week per patient of a large number (80) of the institutions of the United States. The result is as follows: Average cost of construction, for each patient, \$1,253.50; average cost per annum, for maintenance for each patient, \$260.65.

CANADA.

ONTARIO :

Report of the Asylum for the Insane, Toronto: 1878. Dr. DANIEL CLARK.

There were in the Asylum, at date of last report, 671 patients. Admitted since, 189. Total, 860. Discharged recovered, 69. Improved, 21. Unimproved, 7. Died, 47. Eloped, 1. Transferred, 38. On probation, 4, Total, 187. Remaining under treatment, 673.

This report consists largely of the history of the Institution, which dates back to the year 1841, at which time the old jail on Toronto street, was occupied by seventeen patients. The corner stone of the present Institution was laid in 1845. After frequent changes in the superintendency, Dr. Joseph Workman, so long and favorably known in this specialty, was called to take charge. Under his control the Asylum gained a prominent position among the institutions of the country. The Doctor concludes his report with a discussion of the use of alcohol among the insane. He advocates the proper medical use of alcohol, and sustains his position by quoting from some of the best writers on therapeutics, and from others having practical experience in the use of alcohol in the treatment of disease. He recommends the use of whisky, especially in the treatment of mania or melancholia, as preferable to either hydrate of chloral or opium, and says "a dose of whisky once a day, will have more efficacy with no disagreeable feelings following than can be effected by another drug, whatsoever its shape and potency."

Report of the Asylum for Insane, London: 1878. Dr. R. M. BUCKE.

There were in the Asylum, at date of last report, 609 patients. Admitted since, 214. Total, 823. Dis-

charged recovered, 47. Improved, 17. Unimproved, 6. Elopéd, 4. Died, 42. Total, 116. Remaining under treatment, 707.

The experience in the use of alcohol in treatment in this Institution is given, and the Doctor says "that after three years of observation he has come to the conclusion that alcoholic stimulants are no more required in the ailments of the insane than of those among the sane." Acting on this conviction, he has reduced the consumption in the Asylum from \$1,800 to less than \$600 per year. And further, that this reduction has not been accompanied by any increase in the death rate or in the amount of illness.

NOVA SCOTIA :

Twenty-First Report of the Nova Scotia Asylum for the Insane :
1878. DR. ALEX. P. REID.

There were in the Asylum, at date of last report, 351 patients. Admitted since, 93. Total, 444. Discharged recovered, 52. Improved, 10. Unimproved, 4. Died, 16. Total, 82. Remaining under treatment, 406.

The prominent question before the people of Nova Scotia regarding insanity, is that of provision for the large number of cases demanding treatment. In answer to the question, "How is this to be obtained?" after mentioning: First, the erection of an ordinary hospital; second, the construction of cottages attached to the present Institution; third, a separate asylum for the chronic insane, like the "Willard." Dr. Reid presents another form of institution, to which he gives the name of "County Cottage Asylum System." This is substantially the erection for each county, or where the population is small, for two or more adjacent counties, of cottages to accommodate from fifty to one hundred

patients, somewhat after the model of those at "Wiltard." They are to have a center building for the accommodation of officers, as a steward and matron. They are to be under the care of some local physician, a non-resident, and under the supervision of an inspector appointed by the government, who shall thoroughly examine them once in three months. The advantages of such a system, as they appear to the Doctor's mind, are fully set forth in the report. They are not intended for the treatment of acute cases, as these are to be sent directly to the Hospital.

PRINCE EDWARD'S ISLAND:

Report of the Lunatic Asylum, (Charlottetown): 1878. Dr. E. S. BLANCHARD.

There were in the Asylum, at date of last report, 78 patients. Admitted since, 21. Total, 99. Discharged recovered, 10. Improved, 1. Unimproved, 1. Died, 9. Total, 21. Remaining under treatment, 78.

The work on the new Hospital has been pushed vigorously and is now approaching completion. It will, in all probability, be finished and handed over to the government by July of this year. This building is intended to accommodate 140 patients.

NEW BRUNSWICK:

Report of the Provincial Lunatic Asylum, St. Johns: 1878. Dr. JAMES T. STEEVES.

There were in the Asylum, at date of last report, 281 patients. Admitted since, 97. Total, 378. Discharged recovered, 41. Improved, 16. Unimproved, 2. Eloped, 1. Died, 21. Total, 81. Remaining under treatment, 297. Daily average, 287.

BOOK NOTICES.

Giles & Co., or Views and Interviews Concerning Civilization.
By ORPHEUS EVERTS, M. D. Indianapolis : Bowen, Stewart
& Co., 1878.

This little work is as the title would indicate, a collection of views and interviews concerning civilization. The author puts certain expressions in the mouths of his imaginary friends and makes them represent what "society" says concerning the topic under consideration. In his introduction he says: "It is not the purpose * * * to attempt an extensive, profound or learned discussion of the subject of civilization—nor to sketch the history thereof however briefly—proposing to himself only, the presentation of an intellectual *olla-podrida* for an evening's entertainment, the meats of which have been selected without especial discrimination, trusting and believing (otherwise he could not justify himself,) that his invited guests, whether few or many shall participate, will find therein, each one, somewhat that is agreeable to taste and not altogether wanting in nutritious qualities."

The opinions of the various speakers are given in many instances with an epigrammatic directness which is pleasing, and at the same time fixes the attention of the reader. We are unable through lack of space and opportunity to analyze the author's views, but give a few examples of his style of writing, and conclude with some remarks which he puts into the mouth of an imaginary Superintendent of an Insane Asylum concerning insanity, which may, doubtless, be taken to represent the ideas of Dr. Everts.

Among the interviewed is a Judge, who thus speaks concerning the topic, civilization: "Whether for better or

for worse," said the Judge, "civilization is not of man's designing. As a force it does not spring from, nor is it subject to man's will. As a result he but abides, suffers or enjoys it. It pertains to the inevitable, and I for one have ceased to question the merits of the providential, which can only be determined by a knowledge of the universal and eternal, content to hide with Moses in the cleft of a rock while God is passing by, and meanwhile sit in judgment on more limited affairs." I said "Giles, tells me, Judge, that the accumulation of wealth is limited by necessities and laws, to a few individuals, and their success is ever at the expense of the many whom he characterizes as 'unwilling contributors.' Does the same rule hold good in relation to other features of civilization, or to civilization as an aggregate?" "Such is the appearance," said the Judge, "but it is an appearance only. While but a few of the great number of producers of wealth become individually wealthy and few only of civilized mankind reach the higher planes of civilization, the great mass of wealth producers are incalculably benefited by their own productions; and the great multitude of civilized people falling short of the highest attainment are yet wonderfully improved by the motions which they have made in progressing towards it; while but a few indeed fall below the level of their birth." The question of insanity as a result, perhaps we would more correctly say an accompaniment of civilization, is thus spoken of by Dr. Harris, one of the "interviewed."

"And what are the chief or most common exciting causes of this malady?" I asked.

"They may be classified under two general heads," said Dr. Harris: "'Deprivation' and 'Excess.'"

"Under the head 'Deprivation' should be classed *Ignorance*,—want of education—mental training or a systematic use of the thinking organs—and consequent general neglect of all hygienic

observances and appliances essential to the most perfect integrity of organization. *Insufficient nutriment*, or unwise selection, and unwholesome preparation of food, with reference to economy of material and its adaptability to organic needs.

“Under the head of ‘Excess’ should be classed: *Excessive physical labor*, protracted without sufficient intermediate rest—begun too early in life, and continued beyond the age of endurance, either from habit or necessity. *Excessive child-bearing*, under adverse circumstances. *Excessive venereal indulgence*, domestic and promiscuous. *Prostitution*, with its diseases. *Self-pollution*—and last, but not least, *excessive use of alcoholic drinks*.”

“And religion,” chimed in Dr. Dawson. “Religion drives more people mad than whisky does, according to my notion. And spiritualism—you have a great many spiritualists here haven’t you? In my opinion they are all insane; all of them, at least, who were not born idiots.”

Dr. Harris smiled at the earnestness of my old friend and said:

“I do not regard religion as a cause of insanity. The fact that an insane person talks about religion—prays or preaches—or thinks himself an apostle, or the Lord, even, is no indication that he was driven mad by religion. It is possible for the brain to receive such a shock or strain by suffering inordinate religious excitement, as to produce disease. So, too, the loss of sleep, incident to protracted religious meetings when attended by rustic people, whose habits are thus deranged—and loss of appetite, and consequent withholding from the brain for days or weeks of its accustomed and needed nutrition, incident to great anxiety, and what is called ‘conviction of sin’—together with unusual exposure of the body to variable temperatures—under such unfavorable conditions may, and often do provoke brain-disease and develop insanity. But more frequently pneumonia, pleurisy, rheumatism or catarrhal fever is the result, and it is quite as rational to say ‘religious fever’ or ‘religious rheumatism’ as to say ‘religious insanity.’ As for Spiritualism, I do not find that a greater proportion of believers in the pretenses—I can not say doctrines of modern spiritualists become inmates of insane hospitals, than is furnished by other believers in the supernatural, however interpreted, as affecting the opinions or conduct of men.

“Many insane persons manifest delusions of the special senses—and believe that they hear voices, see forms, hold conversations with spiritual personages—and feel sensations independent of contact with material substances, and all that; and much of the

incoherency and inanity of the written communications of insane persons bears a marked resemblance to much of the printed trash which has been uttered by so-called spiritual mediums as coming from the spiritual world—which indicates some relationship between the condition of the mediumistic brain at the time of such utterances and the brains of some insane persons;—and I am of the opinion that all persons who sincerely believe that they hear spirit-voices, see spirit-forms, or feel the touch of spiritual beings, are either imposed upon by the juggling of mediums, or are so seriously impaired themselves as to be in danger of insanity.”

Dr. Everts has succeeded in making a readable little book, and one which presents some matters for reflection in a new and pleasing form.

Report on the Corpus Luteum. By Prof. JOHN C. DALTON, M. D.
[Reprinted from the Transactions of the American Gynecological Society, Session of 1877. Boston: Houghton, Osgood & Co., 1878.]

This is a pamphlet of some fifty pages, giving the result of an examination of the *corpus luteum* in thirty-two sets of ovaries, in which the date of the last menstruation or pregnancy was ascertainable.

The report is illustrated by twelve excellent colored lithographic drawings of the ovaries, showing the *corpora lutea* in different stages, and these add much to the value of the report. In this little monograph Prof. Dalton has made a valuable contribution to the literature of a subject, with which his name is already inseparably connected.

Practical Surgery ; Including Surgical Dressings, Bandaging, Ligations and Amputations. By J. EWING MEARS, M. D., etc.
Philadelphia : Lindsay & Blackiston, 1878.

The author has given in this little work the fundamental features of practical surgery. Opening with a section upon surgical dressings, he very naturally passes to bandaging. Following these two sections, parts

three and four treat respectively of ligations and amputations. The volume is intended more as a hand-book for students than as a work of reference for practitioners, and as such, it will be found of service, presenting as it does, in a concise form, the teachings of the amphitheater and operating room.

Spermatorrhœa ; Its Causes, Symptoms, Results and Treatment.

By ROBERTS BARTHOLOW, A. M., M. D. Fourth Edition Revised. New York: Wm. Wood & Co., 1879.

This little work has now been before the profession for some years, and the present revised and enlarged form is evidence of the favor which it has met, and the call which has been made for it. The work is so well known by most of our readers, that it is unnecessary to here enter into an analysis of its contents. The present edition will be found to be an improvement in many respects on all former ones.

Notes on the Treatment of Skin Diseases. By ROBERT LIVELING, A. M., M. D., Cantab., F. R. C. P., London. New York: Wm. Wood & Co., 1878.

This little volume of notes deals briefly with the etiology, diagnosis, classification and treatment of the more common forms of cutaneous affections. It will be found handy for ready reference and as a supplement to the more cumbrous treatises.

Lectures on Electricity in its Relations to Medicine and Surgery.

By A. D. ROCKWELL, A. M., M. D. New York: Wm. Wood & Co., 1879.

This work repeats in substance what the author has already said in his larger work on the same subject, written in connection with Dr. Beard.

TRANSACTIONS OF SOCIETIES, REPORTS AND PAMPHLETS.

Tenth Annual Report of the State Board of Health of Massachusetts : January, 1879.

The report of the secretary includes remarks and views of the Board upon subjects of general sanitary importance, as the disposition of sewage, pollution of streams, registration of vital statistics, intemperance, prostitution, &c., and a short notice of the various papers presented in the body of the report. Some of the latter are of considerable interest.

Dr. T. S. Clouston, Superintendent of the Morning-side Asylum, at Edinburgh, Scotland, and associate editor of the *Journal of Mental Science*, contributes a paper on "Hospital Homes for the Insane," accompanied by plans for an institution with 200 patients. It is a plan composed of blocks and detached buildings, and is called by the author, "a practical guide for practical men." It presents some advantages over many of the impracticable plans which are presented for consideration. Its sleeping accommodations are mostly in dormitories, and there is a common dining-room and bath-room in accordance with the English system. With such a diversity of views and variety of plans in accord therewith, as now exist, we may look for frequent departures from the ordinary linear plans which have been so often repeated.

Dr. Bowditch continues the subject on which he wrote in a previous report, "The Growth of Children." The article by Dr. Edward Hitchcock, of Amherst College, describing the favorable results gained by the introduction of the "Department of Physical Education

and Hygiene," leads the board to urge the adoption of the same by the colleges of the State. Dr. F. Winsor contributes a paper on "Coal Gas from Heating Apparatus." He suggests precautions which should be observed, to avoid the dangers incident to the use of anthracite coal in closed iron stoves. "Common Defects in House Drains," by E. C. Clarke, C. E., is a practical paper on a most important and practical subject. Dr. Edward Cowles treats of the subject of ventilation and the diffusion of gases, derived from extensive experiments in the Massachusetts General Hospital. These are illustrated by several cuts. The general principles deduced are applicable to all dwellings. The usual report on "The Health of Towns," and the case of Cambridge vs. Niles Brothers conclude the volume. The latter was a suit to prohibit the respondents from carrying on the business of slaughtering where it was held the water supply of the city would be thereby contaminated. Judgment has not yet been given. This report is fully up to the usual high standard, and if properly diffused among the people can not fail to be beneficial to the public health. It not only furnishes ideas, but practical methods.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland: 1878.

This is a volume of more than two hundred pages and contains reports of committees on the various departments of medicine; papers upon subjects of interest, the record of several cases of unusual deformities and diseases, and memoirs of members of the society, who have died during the past year. Among these is found that of Prof. Nathan R. Smith, so long and favorably known as a distinguished surgeon and professor in the Baltimore Medical College. This bio-

graphical sketch is illustrated by a nearly full length portrait, which presents him in the position of instructor, in which he is so pleasantly remembered by his former pupils.

Twelfth Annual Report of the State Board of Charities of the State of New York: 1878.

The secretary of the board, Dr. Chas. S. Hoyt, has devoted most of his report to a review of the work of the board in the prevention of pauperism. In doing this he enumerates the most important of the efforts and labors of the board during the whole period of its existence.

The subjects of provisions for epileptics, the alien and State paupers, and provisions for the chronic insane receive notice. The reports of the individual members of the board on special topics, of which there are nine in number, some of which we have noticed by name in the list of pamphlets received, complete the volume.

Fourth Biennial Report of the Board of State Commissioners for the General Supervision of the Charitable, Penal, Pauper and Reformatory Institutions, Michigan: 1877-78.

The affairs in detail of all the charitable and penal institutions of the State receive the attention of the board. They are treated individually, which is more satisfactory than the tabulated form giving consolidated statistics.

The appendix, consisting of 150 pages, contains papers and addresses upon "The Wants of the Poor," "Hereditary Transmission," "Idleness More Demoralizing than Ignorance," "Provisions for the Blind," and kindred topics. There are several extracts from the Governor's message, concerning the financial exhibit of the institutions and recommendations to the Legislature for their action.

Chloral Inebriety. Read before the Kings County Medical Society. By J. B. MATTESON, M. D., of Brooklyn.

This is an interesting article in which is detailed the evil effects of chloral, as observed in cases when it has been prescribed by physicians as in those in which it has been taken as a habit. Its influence upon digestion, respiration, hearing and vision, upon the heart, liver, kidneys, muscular and nervous system, and blood are especially noted. There are only six cases of chloral inebriety given, notwithstanding the reputed frequency of the chloral habit. The injurious effects stated, as we know from extended use and observation of the drug, are some of them largely if not exclusively due to individual idiosyncracies, as is shown by the fact that they were many of them produced by small doses taken but for a short time. The effect upon the eyes and muscular system are the most common direct results of the remedy.

New South Wales Report of the Inspector of the Insane, for 1877.
F. NORTON MANNING.

This includes the Hospital for the Insane, Gladesville, accommodating 587 patients. Branch Asylum, Callan Park, 44. Lunatic Asylum, Parramatta, 805. Asylum for Imbeciles, Newcastle, 196. Temporary Lunatic Asylum, Cooma, 63. Licensed House for Lunatics, Cook's River, 134. Total under charge, 1,829. Attached to the report are photographic plans of a cottage for the insane and of the grounds and proposed hospital building, at Callan Park, capable of accommodating 666 patients. After many years experience in the charge of an Institution and unusual opportunities for observation of other asylums at home and abroad, Dr. Manning expresses his opinion that "asylums work best both for the patients and the public interests when the number of inmates exceed 600.

The Progress of Medical Science, and Especially of Psychological Medicine in the Nineteenth Century. Dr. T. B. CAMDEN, of Western, West Virginia. [Reprinted from the Transactions of the Medical Society of West Virginia: 1878].

A short commentary is given of the treatment of the insane in former times and the contrast is sharply brought out by a description of a modern hospital for the insane. This furnishes the opportunity, by descending from the general to the particular, for an account of the author's personal experience in the Institution of which he has charge. Several topics of interest are then noticed.

Value of Absent "Tendon Reflex" as a Diagnostic Sign in Locomotor Ataxia, with an Analysis of Eight Cases. ALLAN McLANE HAMILTON, M. D. [Reprinted from the Boston *Medical and Surgical Journal*, December, 1878].

The result of the investigation of the eight cases is stated as follows: "Of these cases, then, one-half present Westphal's symptom, while in the others the tendon reflex is not only present, but in some instances is markedly increased, there being no apparent involvement of the lateral columns, or any other part of the spinal cord." "It would seem, therefore, as if the absence of the tendon-reflex were not so valuable a diagnostic sign as it has been said to be in the disease under consideration."

Report on Aconitia in Trigeminal Neuralgia. By E. C. SEGUIN, M. D. [Reprinted from the *New York Medical Journal*: December, 1878.

A Contribution to the Medicinal Treatment of Chronic Trigeminal Neuralgia. By E. C. SEGUIN, M. D. [Reprinted from the *Medical Record*: January, 1879.]

The results of the investigations into the value of aconitia as a remedy in neuralgia may be summarized as follows: In six cases in which it was employed, two

were cured, three were temporarily relieved and one was not at all benefited. The preparation used was made by Duquesnel, and was given in doses varying from the 1-84th to the 1-200th of a grain. The susceptibility of patients showed a corresponding diversity.

Eye Troubles in General Practice. By HENRY D. NOYES, M. D.
Read before the New York Academy of Medicine, March, 1879.
[Reprinted from the *Medical Record*: April, 1879.]

This monograph is full of instruction to the general practitioner, and conveys the information which he so often needs to enable him to act intelligently and for the benefit of his patient, who relies upon him for treatment and advice. It points out clearly the conditions which should lead him to seek the aid of the specialist, and instructs him in the best mode of treatment of the ordinary diseases of the eye, which he may meet with in the course of general practice.

Fifth Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois: 1878.]

This report is almost entirely composed of statistical tables and of the financial affairs of the charitable institutions of the State, and is wholly of local interest.

CLINICAL CASE.*

BY JOHN CURWEN, M. D.,
Superintendent, Pennsylvania State Lunatic Hospital.

September 30, 1878. Wellman, Charles H., age 25 years, single, born in Salt Lake City, Utah, resides in Philadelphia, occupation a printer, committed by court. First symptoms came on three years ago, and were first noticed in an exhibition of spite or hatred toward his best friends and benefactors. Has a fancy that everybody despises and points the finger of scorn at him; has shown no disposition to injure others; has made three attempts at suicide, twice by laudanum, and once by shooting himself in the forehead, at Philadelphia, on the evening of July 23d, 1878. The bullet still remains in his head. Does not destroy clothing; is cleanly; always was of a retiring disposition, and much given to study and reading; was surly and somewhat selfish; no heredity, as far as known; strictly temperate; given to self-abuse, which is doubtless the immediate cause of his insanity. Has been in the Pennsylvania Hospital, under treatment for the wound in his head; says he was at one time under the treatment of Dr. Pierce, of Buffalo. Whilst in the Pennsylvania Hospital, (General), it was found necessary by the physician in charge to place him in a room by himself, as he disturbed the patients in his ward—after becoming able to go about—by walking and talking during the night.

January 1, 1879. Has continued very comfortable, with the exception of occasional pain and heaviness in his head; is very nervous; is very notional; is reticent as to his thoughts and feelings, but from his general conduct I infer that he has delusions.

February 6. This patient died suddenly to-day. He had been complaining for several days of more pain than usual in his head. At eleven o'clock this morning I saw the patient in the ward, where he was walking around, complaining of great pain in his head, and sustaining his body in a very crooked shape. He said I should not think him drunk because he was walking so oddly. Afterwards he lay down on the lounge in the bay window. When dinner was called, at half-past twelve, he did not appear in the

* Read before the Association of American Superintendents of Asylums for the Insane, Providence, R. I., June 10, 1879.

dining-room, and one of the attendants going in search of him, found him on the lounge, dead; evidently had *just died*. His death was without a groan or a struggle, or the attention of the patients sitting around would have been attracted toward him.

Post-mortem, made twenty hours after death, in order to ascertain the course, location and injury occasioned by the ball which he discharged from a pistol into his head, on July 23.

The ball entered in the median line of the frontal bone, one-twelfth of an inch above the articulation of the nasal bone with the frontal. It passed through the outer plate of the frontal bone, producing a smooth round opening. It then traversed the frontal sinus, and in passing through the posterior wall of this sinus it produced an irregular circular opening of three quarters of an inch in diameter, and the pieces of bone thus detached were thrust into the anterior right lobe of the cerebrum. At this place there were strong adhesions of the lacerated dura mater with the adjoining bony structures. The brain substance at this point had evidently been the seat of inflammation, and was considerably disintegrated. The ball then passed over the ethmoid bone, ploughing up the ethmoidal crest through its whole length, producing a well-marked groove. It then plunged under the anterior crest of the sphenoid bone, where it joins the ethmoid, dipped down and destroyed the upper part of the groove of the bone which receives the rostrum of the sphenoid, and passed into the right sinus in the body of the sphenoid bone, where it was found. It had reached the posterior wall of this sinus with sufficient force to loosen the articulation of the sphenoid bone from the petrous portion of the right temporal and produced a jaggy irregular opening into the cranial cavity, measuring about one-fourth of an inch in diameter, and situated beneath the right middle clinoid process of the sphenoid bone. This last obstruction and fracture seemed to have completely exhausted the force of the ball, and it fell back again into the right sphenoidal sinus, where it remained. Of course the shock of this injury and the presence of impacted spicula of bone in the cerebral substance, could not but produce serious trouble in the contiguous right middle cerebral lobe. The base and apex of this lobe being in the middle fossa, was completely disorganized and softened. In the midst of this broken down brain substance, and lying nearly on the cranial base in the middle fossa, was a tense cyst of the size of a hen's egg. Immediately to the outer side of this cyst, was a smaller one of the size of a common marble. On opening these cysts I found

them filled to their utmost capacity with apparently healthy pus. The whole of this middle cerebral lobe, even to its cortical surface, plainly indicated that there had been a serious interference with its organic vitality. On the dura mater of the right hemispheres and on the contiguous internal surface of the parietal bone, were two ovoidal areas of congestion, which corresponded in size and shape to the large dense cyst which lay at the base, and a little to the inner side of a perpendicular line, let fall from these contiguous areas of congestion. There must have been great pressure at this point, caused by a constantly tense pus cyst, which from appearance, was lined with a very productive pyogenic membrane. That there was great pain at that particular point, the history of the case sufficiently proves, as this is the part which the patient would cover with his hands and complain bitterly of the pain experienced, and indeed in this position, with his hands tightly clasped over the seat of pain, he was found dead on the lounge.

S U M M A R Y .

—Dr. Joseph Rogers, of Madison, Indiana, has been appointed Superintendent of the Hospital for the Insane, Indianapolis, Indiana, *vice* Dr. Orpheus Everts.

—Dr. Everts has resumed general practice in Indianapolis, and has accepted the Professorship of the Principles and Practice of Medical Jurisprudence, in the Medical College of Indiana.

—Dr. R. S. Dewey, First Assistant Physician at the Illinois Northern Hospital for the Insane, Elgin, Illinois, has been appointed Superintendent of the new Hospital for the Insane, at Kankakee, Illinois.

—W. G. Metcalf, M. D., late Assistant Superintendent at the Asylum at London, Ontario, has been appointed Medical Superintendent of the Asylum for the Insane, Kingston, Ontario, *vice* Dr. Dickson, resigned.

—Dr. Carlos F. MacDonald, Superintendent of the Asylum for Insane Criminals, at Auburn, N. Y., has been appointed Superintendent of the new Asylum for Chronic Insane, Binghamton, N. Y., formerly the State Inebriate Asylum.

—We have received from Dr. Lockhart Robertson plans from the Second County Lunatic asylum for Gloucestershire. The plans are presented under the motto, "*Tentanda est Via.*" In introducing his description of them the author says :

"I beg leave to annex a few brief notes, with a block plan for reference, in explanation of the same. I am also desirous to acknowledge my great obligations to a descriptive notice and ground plan contained in the AMERICAN JOURNAL OF INSANITY, for July, 1872, of the new State Asylum at Buffalo, N. Y. The designer of that asylum (Dr. Gray, of Utica), has more nearly realized the requirements of the Gloucester Visitors' "*Suggestions for Architects,*" than have the architects of any of the recent English asylums. Thus the Buffalo Asylum plans are, in my humble opinion, greatly superior in their simplicity and efficiency to those of the new Lancashire Asylum at Whittingham, which I have studied in detail, and which Asylum is often quoted as the best sample of a block asylum building."

REPORTS AND PAMPHLETS RECEIVED.

Hospitals and Asylums for the Insane. Shall we Distinguish Between Them, and Provide for the Latter at Less Expense. [A paper read by HENRY W. LORD, Secretary of the Michigan State Board of Charities and Corrections, at the Sixth Annual Conference, at Chicago.]

Reports and Resolutions Relating to Sanitary Legislation. Presented to the American Public Health Association at its meeting in Richmond, Va.: November, 1878. [Published by order of the Executive Committee.]

Transactions of the American Dermatological Association, held at Saratoga: August, 1878.

Eleventh Annual Report of the Inspectors of Asylums, Prisons and Public Charities for the Province of Ontario: 1878.

Tenth Annual Report of the Board of State Charities and Corrections, of Rhode Island: 1878.

Transactions of the Medical Society of Tennessee, at the Forty-fifth Annual Meeting: 1878.

Report of the Commission on Further Accommodations for the Insane Poor of Connecticut: January, 1879.

Observations on the Structure of the Brain of the White Whale. By HERBERT C. MAJOR, M. D., West Riding Asylum, Wakefield, England.

Fourth Annual Report of the Central New York Institution for Deaf Mutes: 1878.

Sixteenth Annual Report of the New York Society for the Relief of the Ruptured and Crippled: 1878.

Eighth Annual Report of the New York Ear Dispensary: 1878.

Annual Report of the Eastern Dispensary of New York: 1878.

Report of St. Elizabeth's Hospital and Home, Utica, N. Y: 1876-77-78.

Sixty-fifth Annual Report of the Massachusetts General Hospital, Boston: 1878.

Seventh Annual Report of the Roosevelt Hospital, New York: 1878.

Sixtieth Annual Report of the New York Institution for the Instruction of the Deaf and Dumb: 1878.

On the Treatment of Chronic Catarrh of the Bladder and some forms of Cystitis. By THEODORE DEECKE, Special Pathologist, New York State Lunatic Asylum, Utica, N. Y. [Reprinted from the *Buffalo Medical and Surgical Journal*: February, 1879]

Seventh Biennial Report of the Illinois Asylum for Feeble Minded Children, Lincoln: 1878.

Circular of Information Relating to the Pennsylvania Training School for Feeble Minded Children.

Twenty-sixth Annual Report of the Pennsylvania Training School for Feeble Minded Children, Media, Pa.: 1878.

Forty-fifth Annual Report of the Troy Orphan Asylum: 1878.

Twentieth Report of the Georgia Institution for the Education of the Deaf and Dumb: 1878.

Annual Report of the Superintendent of State Prisons of the State of New York: 1878.

Third Annual Report of the Board of Health of Utica, N. Y.: 1878.

Introductory Lecture, Albany Medical College. By SAMUEL B. WARD, Professor of Surgical Pathology and Operative Surgery: September, 1878.

The Relations of the Medical Profession to the State. Address delivered before the Medical Society of the State of New York: February, 1879. By D. B. ST. JOHN ROOSA, M. D., President of the Society.

An Address upon the Life and Character of Lunsford Pitts Yandell, M. D. By RICHARD O. COWLING, M. D.

An Address Presenting the Claims of the Medical Department of the Syracuse University. By ALFRED MERCER, M. D.

Address to the Graduating Class of the Medical College of the Pacific for 1878.

"Fifty Years Ago." By HENRY GIBBONS, Sr., M. D.

Valedictory Address to the Graduating Class, Jefferson Medical College. By J. AITKEN MEIGS, M. D., Professor of Institutes of Medicine and Medical Jurisprudence.

Memorial of John Eugene Tylor, M. D. Prepared at the Request of the New England Psychological Society, by J. P. BANCROFT, M. D.

On the Induction of Premature Labor in the Albuminuria of Pregnancy. By FORDYCE BARKER, M. D., LL. D. [Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*: July, 1878.]

Valedictory Address. By SAMUEL S. PURPLE, M. D., Retiring President, and *Inaugural Address.* By FORDYCE BARKER, M. D., LL. D., President of the New York Academy of Medicine: 1879.

Urethrisms or Chronic Spasmodic Stricture. By F. N. OTIS, M. D. [Reprinted from the *Hospital Gazette*: April 19, 1879.]

On Spasmodic Stricture of the Urethra. A reply to Dr. F. N. Otis. By HENRY B. SANDS, M. D.

Retroversion in Relation to the Lacerations of the Cervix Uteri. By NATHAN BOZEMAN, M. D. [Reprinted from the *Gynæcological Transactions*: 1879.]

On the Traumatic Origin of Subfascial, Deep Seated or Cold Abscess. By LEWIS A. SAYRE, M. D. Read before the Medical Society of New York: February, 1879.

Quarantine with Reference Solely to Sea-Port Towns. By S. OAKLEY VANDERPOOL, M. D., LL. D., Health Officer of the Port of New York.

Forty-seventh Annual Report of the Perkins Institution and Massachusetts School for the Blind, Boston, Mass: 1878.

Eighth Annual Report of the State Board of Charities and Reform of the State of Wisconsin: 1878.

"*Report on the Steuben County Poor-House;*" "*Plans for Poor-Houses.*" By WILLIAM P. LETCHWORTH. [Extracted from the Twelfth Annual Report of the Board of State Charities of the State of New York.]

Report on the Management and Affairs of the Onondaga County Poor-House, by Joint Committees of the State Board of Charities and of the Board of Supervisors of Onondaga County: 1879.

The Relations of Insanity to Modern Civilization. By Dr. HENRY P. STEARNS, Superintendent of the Retreat, Hartford, Conn. [Reprinted from *Scribner's Monthly*.]

AMERICAN JOURNAL OF INSANITY, FOR OCTOBER, 1879.

PROCEEDINGS OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS.

The Thirty-Third Annual Meeting of the Association was held at the Narragansett House, in the City of Providence, R. I., commencing at 10 A. M., of Tuesday, June 10, 1879.

The following members were present during the sessions of the Association:

J. B. Andrews, M. D., Assistant Physician, State Lunatic Asylum, Utica, N. Y.

J. P. Bancroft, M. D., Asylum for the Insane, Concord, N. H.

Cyrus K. Bartlett, M. D., Hospital for Insane, St. Peter, Minn.

H. Black, M. D., Eastern Lunatic Asylum, Williamsburg, Va.

J. P. Brown, M. D., Lunatic Hospital, Taunton, Mass.

P. Bryce, M. D., Hospital for the Insane, Tuscaloosa, Ala.

D. R. Burrell, M. D., Brigham Hall, Canandaigua, N. Y.

John S. Butler, M. D., Hartford, Conn.

John H. Callender, M. D., Hospital for the Insane, Nashville, Tennessee.

T. B. Camden, M. D., Hospital for Insane, Weston, W. Va.

Walter Channing, M. D., Private Hospital for Insane, Brookline, Mass.

John B. Chapin, M. D., Willard Asylum for Insane, Willard, N. Y.

R. C. Chenault, M. D., Eastern Lunatic Asylum, Lexington, Ky.

Daniel Clark, M. D., Asylum for the Insane, Toronto, Ont.

John Curwen, M. D., Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Joseph Draper, M. D., Asylum for the Insane, Brattleboro, Vt.

J. W. Fisher, M. D., Assistant Physician, Hospital for the Insane, Mendota, Wis.

VOL. XXXVI.—No. II.—A.

F. T. Fuller, M. D., Assistant Physician, Insane Asylum, Raleigh, N. C.

W. W. Godding, M. D., Government Hospital for the Insane, Washington, D. C.

John C. Hall, M. D., Friends' Asylum for the Insane, Frankford, Philadelphia, Pa.

W. B. Hallock, M. D., Cromwell Hall, Cromwell, Conn.

Henry M. Harlow, M. D., Hospital for the Insane, Augusta, Me.

F. W. Hatch, Jr., M. D., Assistant Physician, State Asylum for the Insane, Napa, Cal.

Henry M. Hurd, M. D., Eastern Michigan Asylum, Pontiac, Mich.

Walter Kempster, M. D., Northern Hospital for Insane, Winnebago, Wis.

Thomas S. Kirkbride, M. D., Pennsylvania Hospital for the Insane, Philadelphia, Pa.

W. H. Lathrop, M. D., Asylum for Chronic Insane, Tewksbury, Mass.

Calvin S. May, M. D., State Lunatic Hospital, Danvers, Mass.

Edward Mead, M. D., Boston, Mass.

T. J. Mitchell, M. D., State Insane Asylum, Jackson, Miss.

D. A. Morse, M. D., Dayton Asylum for the Insane, Dayton, Ohio.

Charles H. Nichols, M. D., Bloomingdale Asylum, New York.

Geo. C. Palmer, M. D., Michigan Asylum for the Insane, Kalamazoo, Mich.

John G. Park, M. D., Worcester Lunatic Hospital, Worcester, Mass.

Hosea M. Quinby, M. D., Asylum for Chronic Insane, Worcester, Mass.

Joseph A. Reed, M. D., Western Pennsylvania Hospital for the Insane, Dixmont, Pa.

A. P. Reid, M. D., Nova Scotia Hospital for the Insane, Halifax, N. S., Canada.

Ira Russell, M. D., Private Asylum, Winchendon Highlands, Mass.

John W. Sawyer, M. D., Butler Hospital for the Insane, Providence, R. I.

S. S. Schultz, M. D., State Hospital for the Insane, Danville, Pa.

A. Marvin Shew, M. D., Connecticut Hospital for the Insane, Middletown, Conn.

H. P. Stearns, M. D., Retreat for the Insane, Hartford, Conn.

James T. Steeves, M. D., Provincial Lunatic Asylum, St. John, N. B.

W. H. Strew, M. D., City Lunatic Asylum, Blackwell's Island, N. Y.

J. Strong, M. D., Asylum for the Insane, Cleveland, Ohio.

Clement A. Walker, M. D., Lunatic Hospital, Boston, Mass.

J. M. Wallace, M. D., Asylum for the Insane, Hamilton, Ont.

The minutes of the last meeting were then read.

Dr. Ray introduced to the Association, Hon. Amos C. Barstow, President of the Board of Trustees, of the Butler Hospital for the Insane. Mr. Barstow said:

I am sorry, Mr. President and gentlemen, to interrupt your proceedings, but my duties call me elsewhere. It is only necessary for me to give you an informal welcome here, hoping to give you a more formal greeting to-morrow. The Board of Trustees are glad that you have accepted our invitation to meet in this city, and will try to make the meeting agreeable to you. Our city, through its Mayor, extends an invitation to visit the City Hall, and all the institutions you may desire, and the President of Brown University invites you to visit that fine institution. We will make arrangements so that during the evening we can extend the invitations for the morrow. I will, however, announce an invitation to visit Redwood Library at Newport.

Mr. Barstow then introduced to the Association his associates on the committee, Mr. Roland Hazard, of Providence, and Mr. Rufus Waterman, of Wakefield.

The Secretary then read letters from Drs. Knapp, of Kansas; E. T. Wilkins, of California; J. H. Worthington, Jelly, Eastman and Barstow, expressing their regret at not being able to attend this meeting of the Association.

The President, Dr. Charles H. Nichols, said:

Having held the honorable position of President of this Association for something more than the average period of my predecessors, I deem it becoming in me to resign it, which I now do.

For the dignity, singleness of purpose, and absence of self-seeking that have generally characterized the proceedings, the Association has been hitherto remarkable. Indeed, it has been a model in these respects which some of the ecclesiastical bodies of the

country would do well to emulate; and I take the liberty, which this occasion offers me, to express my earnest hope and belief that in the future it may be animated by the same pure devotion to the study and amelioration of the chief ill to which flesh is heir, unembarrassed by partisan or personal animosities, or partialities, that it has displayed in such a conspicuous and creditable manner in the past. The generally acknowledged authority of the Association, in all the multifarious and important relations of insanity to society and the State, is due, in my estimation, as much to the harmony of opinion and devotion of purpose which prevail among its members, very largely through the agency of this body, as to the soundness of the reasons they give for those articles of professional faith which are mainly founded on special study and experience, and are of necessity more or less mysterious and incomprehensible to the public mind, and we shall certainly forfeit our high position among the bodies of the land that are honored for their public usefulness, become demoralized among ourselves and before the country, if we permit any sectional, party or personal issues to creep into our deliberations and divert us from the single, scientific and benevolent purposes of our organization, the danger of which can not be considered imaginary, as the number of members becomes very large, and their personal interests widespread and multifarious, and the Association passes the humble and formative period of struggle for recognition and usefulness. Being the first of the National Medical Associations formed in this country, and having a single, special object in view in its organization, it is obvious that it should strictly adhere to its original purposes and designs, and sedulously avoid all entangling alliances of membership and effort. Pursuing the wise and safe course of the past—that of a sincere devotion to our special calling—I foresee for the Association a future career of honor and usefulness commensurate with the growth and glory of the two countries represented in it. I have very highly appreciated the uniform respect that has been shown for the office of President of this body, during my incumbency of it, for which I sincerely thank you.

On motion of Dr. Curwen, the President was requested to appoint the usual Standing Committees.

The President announced the Committee on Business to be Drs. Sawyer, Shew and Curwen.

The President announced that the other committees would be announced at a subsequent session.

On motion of Dr. Ray, it was

Resolved, That the resignation of the President be accepted, and that the thanks of the Association be tendered to Dr. Nichols for his able and impartial administration of the trust.

Dr. CURWEN. The Association having accepted the resignation of the President, it will be necessary to appoint a President *pro tempore*, as the Vice President has not yet arrived.

On motion of Dr. Kirkbride, it was

Resolved, That Dr. Callender, of Tennessee, be appointed President, *pro tempore*.

On taking the chair Dr. Callender said:

Gentlemen of the Association: I thank you for the honor you have conferred so unexpectedly and undeservedly upon me, but I will endeavor to discharge my duties faithfully while presiding temporarily over your proceedings.

On motion of Dr. Kirkbride, it was

Resolved, That a committee of three be appointed by the Chair to nominate a successor to Dr. Nichols, and to propose names for any other vacancies that may occur in the officers of the Association.

The Chair appointed as the committee, Drs. Kirkbride, Ray and Kempster.

The Secretary then read invitations from the Board of State Charities and Corrections, from the Rhode Island Medical Society, from the President of Brown University, and from the President of the Redwood Library, of Newport, which were referred to the Committee on Business.

On motion of Dr. Kirkbride, it was

Resolved, That the medical profession of the city of Providence and of the State of Rhode Island, the Trustees of the Butler Hospital, and the Board of State Charities be invited to attend the sessions of the Association.

On motion of Dr. Curwen, a recess of ten minutes was taken to enable the Committee on Business to arrange the business of the Association.

On re-assembling, Dr. Walker, the Vice President, took the chair.

Dr. Kirkbride, from the Committee on Nominations, reported that they would recommend Dr. Clement A. Walker as President, Dr. John H. Callender as Vice President, which report was unanimously adopted.

The Committee on Business made the following report, which was adopted.

The Committee on Business respectfully recommend that the Association adjourn at 1 P. M., and meet at the hotel at 3 P. M., to visit the City Hall, by invitation of the Mayor, and from there to Brown University, at 4 P. M., by invitation of the President, and meet at 7 P. M., for an evening session.

On Wednesday meet at 9.30 A. M.; adjourn at 12 M., and go to Butler Hospital to spend the afternoon, and hold a session at 7.30 P. M.

On Thursday leave the hotel at 9.30 A. M., to visit the Asylum for the Chronic Insane, under the conduct of the Board of State Charities; visit the Rhode Island Hospital at 6 P. M., and hold a session at 8 P. M.

On Friday, morning session from 9.30 to 11 A. M.; leave the Newport wharf on Steamer Day-Star, at 11.30 A. M., for trip down the bay and clam bake at Rocky Point; visit the U. S. Torpedo Station, and stop at Newport and hold a session at 8 P. M.

Dr. Ray then read a paper on the "Curability of Insanity."

The President announced the discussion of Dr. Ray's paper to be in order.

When Dr. Kirkbride's name was called, he said:

I have had my say, sir, on this subject, in my reports. I have nothing more to add to what I have there said. I think the paper eminently sensible, and that it can not help doing great good in the profession.

Dr. J. T. STEEVES, of New Brunswick. I understand from the Doctor's line of argument, that he believes the insanity of the present time is less curable than was that of the past, and thus throwing the weight of his authority in favor of the correctness of the old statistics. There is just one thought or circumstance, bearing upon this subject, to which I wish to call attention; it may not be of much value, but it is at least strange that during the period which those old statistics cover, the popular belief was that insanity was markedly an incurable disease, and that during the recent period the belief extensively prevails that insanity is highly amenable to treatment, as are ordinary physical diseases, and that therefore statistics and popular belief are opposed, and both have changed sides.

Dr. C. H. NICHOLS. I fully agree with the views taken in the paper. It occurred to me to bring to the notice of the Association one point that Dr. Ray does not refer to. It seems to me there has been a marked and effective improvement in the treatment of insanity during the period that I have been connected with the specialty, now thirty-five years; and that a larger proportion of a given number of cases of the same character are cured now than were thirty or forty years ago. That, of course, does not account for the smaller number of cases cured; but emphasizes, to my mind, the view the Doctor takes of the facts, as I regard it, of the less curability of insanity than was the case when I entered the specialty. In my own experience I rather rarely get simple cases of mania, in persons of a sound constitution, that will make a vigorous recuperative effort, as many cases would do when I first became acquainted with the treatment of insanity. If a man has pneumonia one winter, recovers, and remains well during the summer, appears to be well, thinks himself well, and transacts his ordinary business with his ordinary vigor, it seems to me that he has made a positive recovery, for which nature and the medical art should have the credit. The lungs of such a man are usually more susceptible to diseased action than they were before they ever took it on; and if, in the next or succeeding winter from such exposure as produced the first attack, they become inflamed again, it seems

to me to be a second distinct attack, not a relapse. Now the same rule, or reasoning, applies to repeated attacks of insanity. If a person, who has had an attack of insanity, appears to be well, and pursues his ordinary mode of life in his ordinary manner for months, it seems to me that he should be held to have recovered, and that the agencies which appear to have promoted his recovery should have the credit of it; and if he becomes insane from causes similar to those that produced the first attack, or from any other cause or causes, he appears to me to be suffering from a separate attack of disease. And I can not see that any rule can be laid down under which we shall say that one case is a second attack, and another a relapse, according to the time that has elapsed between apparent recovery and the reappearance of disease. You would have no doubt that one man, who had appeared to be well for three months only, was really well during that time, and that a fresh attack had arisen from distinct agencies calculated to produce it, while in another case you long remain in doubt whether the recovery was complete or not, and in still another whether the reappearance of morbid mental manifestations was not due to that tendency to periodicity which all mental diseases more or less manifest, or, in other words, whether the case was not going to turn out to be one of "circular insanity." I may add that the cases of restoration, at an early period after discharge from institutions, mainly in consequence of the treatment they have received, appear to me to considerably exceed those doubtful cases in which superintendents give themselves the benefit of the doubt in entering them on the list of recoveries.

Dr. W. W. GODDING. Mr. President, I can only say in regard to the paper that it is particularly gratifying to me, as being the opinion of the Nestor of our profession, somewhat in contradistinction to that of Dr. Earle, who stands among the older members. It seems to me a question of which older members than myself are best able to speak. The only point which occurs to me now, in this connection, is that the percentage of recoveries of latter years, at least in my own experience, has been somewhat reduced, and the statistics modified by the absolute necessity of discharging to make room in crowded hospitals for new cases pressing for admission. During my time with Taunton Hospital, in Massachusetts, this was more especially the case. We were crowded almost beyond endurance, and the patients were discharged reported improved, when a longer retention in the Institution would have enabled us to report them recovered. This seems to modify the statistics, and also Dr. Earle's conclusions.

Dr. J. P. BROWN. I have been very much interested in the paper, and think it a very valuable production at this time.

Dr. H. M. HARLOW. I have simply to say that I was very much interested in the paper just read by Dr. Ray. The third point he makes entirely coincides with my own views, viz.: that the character of insanity has changed within the last thirty or forty years. The disease is less violent, less maniacal in its form, and there is, according to my observation, a smaller number of cures. The percentage, from some cause or other, has gradually diminished. Whether it is from the form of disease, or otherwise, I am unable to say. The fact that a patient is repeatedly discharged from our hospitals, as recovered, is somewhat against the permanency of the cure. It is true, as has been said, that other organs of the body may become diseased, and as frequently restored, that they have attacks of disease several times and recover. The question then arises, whether or not it is so with the brain. With me it is one of the most difficult points to settle when a patient is fully and substantially cured. That, it seems to me, can only be proved by trial—by his being permitted to mingle with friends, and in society. We have, from time to time, patients who go home apparently as well as they ever were, and in the course of a few weeks or months they have a relapse, and are obliged to return. Such cases as these we do not feel warranted in pronouncing recovered. It seems to me that a person ought to remain at least a year in a state of sanity in order to be pronounced cured.

Dr. W. H. STEW. There is one thought that occurred to me when this paper was presented, and I feel that I am at liberty to make that known. I felt certain we should have nothing but what was good when we had the paper presented to us from the source it came. If I understood the idea of Dr. Earle, it was that there were too many recoveries from the same person, and that institutions were getting the credit of more recoveries than they were justified in reporting. For instance, recurrent or alcoholic mania may occur in one patient several times in the same year. He may be sent in several times and discharged as cured within twelve months, and the institution gets the credit of the recoveries. The attention of Dr. Earle has probably been called to that subject. My attention has been called to this subject. In looking over the records of the Institution of which I have charge, I observed that the cases more recently admitted have changed somewhat in character or type, as remarked by my friend who has just preceded me. They seem to be more of the melancholic form,

a class from which we are to expect a smaller number of recoveries than from those of a more acute and excitable class or violent cases of mania.

Dr. D. A. MORSE. In our Institution we have names of persons given as recovered seven or eight or nine different times. One gentleman has suggested that a year should be fixed as a limit by which to judge of recovery, or to determine whether it was an improved case. I can not see any just reason why we should determine upon one year more than ten years or five years. We have had quite a number of cases returned since I have been on duty there. I have in mind the case of one lady who remained out sixteen years. She had been in the Asylum, was returned home, and after that length of time again brought to the Asylum. There are other cases between one and two years. I can see no just reason why a person should be discharged, recovered or improved or unimproved, in this, any more than any other disease. A person may have intermittent fever in the fall, and he may so far recover as not to have it until two years afterwards. Why not say in that case the patient is not cured. I think our reports should say distinctly, to all who wish to study them, so that we may not only know the number of cases, but be able to determine definitely the number of different individuals. For instance we have the number of admissions and the number of re-admissions, and any one who will take the trouble to examine, can easily find how many are primary cases, and how many are returned. I think it is hard to determine, with the larger part of the persons who leave our asylums, whether there is permanent recovery or not. There are persons who may come back in a year or two, and there may be others who may not be returned for ten years. I think we generally find that after four or five attacks they come back more frequently, that the interval is even much less than between the first and second attacks. There is one point that I wish to call attention to, that the Doctor has not referred to. Does not the increase of asylums tend to bring into them persons not so likely to be cured, but who formerly, on account of seemingly harmless dispositions, were not placed in insane institutions at all? For instance, in Ohio, thirty years ago, the insane asylums could not accommodate more than three hundred, now their capacity is three thousand four hundred. Now we have a number that are not clear cases of insanity, but persons of defective mental organization, who from their birth have been to some extent shattered in their nervous system. As they reach thirty or forty years of age, mental strain develops their disease,

and they are diagnosed as cases of insanity of two or three weeks' or two or three months' duration, while the fact is they have been all their lives affected with this disease. Our asylums to-day contain a large number of persons who ordinarily would have been infirm cases. You take a State of three millions of inhabitants, and you admit to the institutions of that State three thousand four hundred cases from within its borders, and there are a great many necessarily incurable, whilst if we were to cut down the number of three thousand four hundred to one thousand, and have the others turned out, we would admit only those in which there was a probability of cure, but that would not in reality increase the number of cures. We are now compelled to receive a number of cases marked incurable from the start. If we were able to discriminate, we could reduce the list very much of those incurable; thus when only three hundred patients can be admitted, cases are selected with reference to their curability, while at present, in Ohio, no attention is paid to this point except in counties where their quota is more than filled, then the more recent cases only are taken. In this connection I would like to call attention to what is termed the "great increase of insanity." In Ohio, many believe insanity to have increased faster than the population. To my mind this is only apparent. The Ohio system is such that every clear case of insanity in the State comes before the public for attention. Her system I discussed in my report of last year, and will not review that farther than to say that my remarks there made may not fully present the other side of the case. Ohio houses, feeds, clothes and furnishes medical treatment to her insane, rich or poor, gratuitously. She in this way bids for the care of imbeciles and the aged, who are kept by the State when alleged insane. The friends of many of these cases would retain them at home if they were compelled to pay even two dollars a week for their support at an asylum. Ohio has the accumulation in her asylums of the insane for thirty or more years. Last year a man died here who was admitted twenty-four years ago, the year the house was opened. Many of these old cases are harmless dements, who will live many years yet. Patients are now living who were among the first admitted to the first asylum built in the State. When you count all these, the epileptic, imbeciles and aged, crowded upon the asylums, is it a wonder that it is declared insanity is increasing?

DR. W. KEMPSTER. Mr. President, Dr. Ray's paper has interested me very much, and I think that the position he has taken

relative to hospital statistics is eminently sound. The tendency of certain persons appears to be towards iconoclasm, and with this class every thing, every figure not for them is against them, and is regarded as utterly unreliable. The younger members of this Association never met the late Dr. Bell, but we are informed that he left a spotless reputation, and that his every act was performed with a conscientious regard for strict integrity. Yet we find that his statistics are pulled to pieces, and if his motives are not called in question, we are given to understand that he was greatly mistaken in his estimates, in other words that he did not know what he was about, or else he did not care. The main points have been touched upon, I think, by the preceding speakers. Dr. Nichols has alluded to one important point, a point that should be emphasized, that is, that there are marked differences in the types of insanity observed fifty years ago, that the conditions are as greatly changed in insanity as they are in other forms of disease. Upon this point I am not aware that there is a difference of opinion. The gentleman from Ohio, (Dr. Morse), has remarked that we are to-day receiving a greater number of the disorganized element of society into our institutions, people who have, from one cause or another, become wrecks, in whom the nervous system has become utterly broken down, who from the very first are chronic cases of insanity. We are frequently called upon to receive cases into the hospital who have not, until within a very short time, manifested decided evidences of insanity, but, upon close examination, we find that the disease has been slowly advancing, its beginnings perhaps inherited, perhaps resulting from many causes, not noted by the laity, but significant enough to the more skilled observer—significant of chronicity from the very first. Take for instance, a class of cases represented in its most advanced stages, by the general paralytic; it is but comparatively recently that this disease has been added to the list of mortality in hospitals for the insane. Then there are cases presenting many of the symptoms of general paresis, but lacking some of the most essential features, yet in my experience equally disheartening, and equally, but not as rapidly fatal. A typical case of the latter kind has quite recently fallen under my observation, the person being a highly educated and intelligent observer, capable at first of noticing all the peculiar symptoms as they occurred. This person was at one time examined by one of the most distinguished neurologists of Chicago, and pronounced a case of general paresis; subsequently the person came under my observation, and was found to present many symp-

tics common to paresis, but lacked the distinctive features. I watched the case through its course, and had the opportunity of making a post mortem examination, when it was found that the pathological conditions were entirely different from those found in cases of paresis: both the gross and microscopical appearances were essentially different. There can be no doubt of the fact that now the nervous element predominates, and the restless activity which characterizes our American people, fosters and nurtures the further development of this element, which plays such an important part in filling up our hospitals. Statistics tell us in language so plain that we dare not question their reliability, that these "nervous difficulties" are increasing, and that as they increase manifestations of health and vigor decrease, and the increased "nervous element" is closely allied to the incipient insane state which is also increasing. The changes are significant factors in the causation of insanity, and must be taken into account in comparing the statistics of to-day with those prepared by the older members of this Association. I do not think that any member of this Association would so belittle himself and his profession as to put into form of statistics, anything which he believed to be a "gross exaggeration of facts," or so demean himself as to record as facts, relative to the recoveries in his institution, anything that was not as represented, merely to present an array of figures for the purpose of advertising himself as an unusually able man in the cure of disease. I regret that Dr. Earle was not present to hear the paper.

Dr. T. B. CAMDEN. I am pleased with Dr. Ray's paper and I like Dr. Earle's report also. I think both productions will have a tendency to correct our statistics. Perhaps errors have crept in on both sides. Dr. Earle has called our attention to some which he thinks have passed into our reports. Dr. Ray's paper will have a tendency to correct Dr. Earle's views, if extreme. I hope we may be able to arrive at a more correct mode of making up our statistics in this particular, so as to determine the cures in insanity. Cases are so apt to relapse that it is almost impossible to tell when a case is absolutely cured. I think if we could observe cases for five or six years, we would have more satisfactory results. I know of patients in our hospital who relapse again and again, every few months, or once a year. If such cases were discharged as "cured," as often as they appear well, they would swell the cures erroneously. On the other hand some go out of the hospital not as cured, but recover very soon afterward, and do not enter into

the "cures" in our reports. If such cases could be correctly stated, and placed in our reports as they should be, I think we would have a more correct idea of the curability of insanity and better statistics.

Dr. JOHN S. BUTLER. My experience, as many of you know, has led me to the belief that strictly recent cases of insanity are eminently curable. I have listened with great interest and gratification to this paper of Dr. Ray's. It is most valuable and timely, and has my hearty endorsement. As we have little time left for any discussion of this subject, let us briefly recall the result of an investigation I was led to make some years ago, the precise details of which I regret are not at hand. Anxious to verify my own report in regard to the number of cases given therein, as "recovered," I made, by personal inquiries, letters to friends, &c., &c., most careful investigations into the histories of all those patients who had been discharged from the Retreat, either as "recovered," or as "much improved," during the preceding five years of the permanency of the benefit they were supposed to have received, and of their present mental condition. I included in my inquiry all those cases discharged as "much improved," because I was not unfrequently led to include within that class of discharged, patients of whose permanent and perfect recovery I was very hopeful, but whose premature removal and uncertain mental ability to meet successfully the unfortunate or malign associations of home, &c., made me hesitate to class them as recovered, though apparently they were so. I was quite unexpectedly successful in obtaining the history of very nearly all of these cases. The results were very satisfactory. Of those discharged as "recovered," a certain number had relapsed at some period during the specific time of five years. But of those discharged as "much improved," a decidedly larger number were reported as having shown no evidence of insanity since their return, or as having been speedily restored under the continued influence of the remedial treatment of the institution; thus, as it seemed to me fully justifying the reported number of recoveries.

Dr. S. S. SCHULTZ. Mr. President, it is admitted, I believe, by all that the character of insanity is changed, and that therefore it has become less curable. I believe, however, with Dr. Morse, that the hospital populations are less curable now than they were years ago, from the additional fact that a much larger proportion of cases of emotional, or moral insanity, find admission to hospitals than formerly. No doubt more of such cases exist, but, independ-

ently of this, a larger proportion of the existing cases find their way into hospitals. Modern science and philanthropy, with a more general diffusion of correct views, are saving many a person from the room of the criminal, and are justly transferring him from the gallows and prison to the hospital. Again, as populations become denser, and hospitals more accessible, fewer of the insane are tolerated at large, and a much larger proportion of those considered only slightly insane become inmates of hospitals, and enter into statistical tables, than was the case twenty, thirty, or forty years ago. The patients here referred to are, however, amongst the most incurable, and therefore make the results of treatment appear less favorable. The point is not that a larger proportion of such cases exist, which has been already dwelled upon, but that a larger proportion of the existing cases become subjects of hospital treatment, and therefore diminish the ratio of cures. In a recent meeting of British alienists a remark was made to the effect that a disagreeable *neighbor* often had mental peculiarities enough to be made out to be insane. When the population is very sparse a person slightly insane may not necessarily be very disagreeable to his distant neighbor.

Dr. DANIEL CLARK. I think, Mr. President, the paper read deserves consideration. The points of the subject are pithily put, and the subject matter is of great importance to the specialist. The term curability is a very ambiguous word. I question very much if we can say a person is ever cured, if to be cured means being reinstated in the same condition as before the invasion of disease. The marks of any acute disease can be always traced in pathological conditions altogether different from the normal. In pneumonia or pleurisy the footprints of the disease remain indelibly on the structures which have been invaded, and which must ever after affect their functions. It is the same in brain disease, and a person once afflicted is more liable than before to relapse into the former condition. The *term* cured must be accepted in a relative way.

I think there is a great deal of truth in what Dr. Ray has written, on the increased liability of the inhabitants of cities and towns to insanity. The tear and wear of daily life, the sharp competition in business, and the many anxieties incident to centers of population, cause a great strain upon the nervous system. If the statement be true that one person in every three of the whole population now lives in cities of fifty thousand and upwards, you can at once see that those in quieter pursuits of life are in a minority. Large

numbers of those engaged in agricultural and mechanical pursuits seek the cities in the hope to better their condition. Disappointment and failure, followed by various excesses, drive a larger percentage of such insane to asylums, than if they had remained in the rural districts. If a twenty horse power engine is run at a thirty horse power speed the engine will sooner or later give way under the strain. I think, on the whole, the statistics of asylums are honestly given in respect to discharges, and the classification of such into cured, improved and unimproved. It is often difficult to say when a person is sufficiently recovered to be set at large. No two superintendents can have the same opinion on all cases of this kind. One superintendent may discharge a person as recovered, while another more cautious might keep that person under observation several months longer, fearing a relapse. I think we have all experienced this difficulty, seeing we can use no cast-iron rules, and so much depends on the rashness or precaution or sharp diagnoses of one superintendent over another. These points are well worth a discussion.

Dr. R. C. CHENAULT. There is one thing that has probably been overlooked in this discussion. From my own experience, which has not been as great as that of older members, I think it must be admitted that we discharge patients, from year to year, with more or less disease recurrent. We base our decisions upon the number of these as recovered and discharged improved. I think it is very fair to give the dates of the discharge of those who have been heretofore received into the asylums. Physicians will admit that they would rather treat those who have never had a disease, and the public ought to give us the credit of treating those persons the second time, when that is done. I fully concur with the sentiments of Dr. Ray's paper. It is a subject I am very glad to hear the members of the profession discuss.

Dr. C. S. MAY. So far as the change in type of disease goes, I will not speak of that, but it occurs to me there may be a reason for change of type like this, that the disease is the result, not so much of overwork or over-taxation of the nervous or mental forces, but rather of more indulgence in the irregularities of life for which there are greater opportunities now than twenty or thirty years ago, or when Dr. Bell made his statements. This very frequently results in the breaking down of the constitution. The more excessive the indulgence in these irregularities the more serious are the effects upon the nerve centers. It seems to me that I see or know of a great many more who become insane as the result of

irregularity of life than formerly. In many of these cases there exists an inherited defect, and consequently they are more seriously affected, than those who are broken down from overwork or over-taxation. The class of people who have been working hardest, the last five or ten years, has a very small percentage of insane, as I have observed. We do not get our largest percentage from that class, and therefore I do not look upon that as the cause of change in the results.

Dr. J. P. BANCROFT. I had not the pleasure of hearing the paper just now being discussed, and, of course, I am not prepared to remark upon it. For that reason it might not be proper that I should take up the time of the Association. I beg this opportunity to say one thing, however, that has been suggested by the discussion so far. It has been said that the human constitution is now more liable to insanity than when they first began to keep the statistics of the disease. If that is true, it is only, it seems to me, in keeping with the facts as to other diseases. We find in other directions that the constitution has changed in its liability to certain conditions within the last fifty years. That is shown very plainly, I think, in the practice of medicine. It was a common thing for the constitution to bear a kind of treatment fifty years ago, for disease, which now it would not stand at all. The general practice of medicine, within the period of my recollection, has almost entirely changed. I do not know what that means, unless the power, or the relation of the constitution to medicine, is changed. We could hardly bring a charge against our fathers that they were entirely without good judgment in the selection of the remedies they employed for diseases; yet in those days, when people were sick, they were bled and purged and subjected to other forms of treatment which we are acquainted with, but do not practice.

Dr. J. H. CALLENDER. I have no special remarks to offer. I regard the paper as forcible and opportune, as is everything presented by Dr. Ray, and that its criticisms on the positions of Dr. Earle are just. The reference to general impairment of vitality of large classes, resident in cities, and their artificial social condition, is a pregnant fact in the inquiry. It is my opinion that it has altered the types of insanity, and modified its curability in a considerable degree.

Dr. IRA RUSSELL. One thought occurred to me in regard to the recurrence of disease. We have recovery in intermittent fever and pneumonia, and other diseases where the disease has been repeated;

have perhaps that one attack without any reference to another. Now, in regard to intermittent fever, it is due to a physical cause. We suppose that insanity is due to some moral or physical cause, or both. Now, a recurrence may be due to subjecting a patient to the same cause that produced the first attack, while that person, in good healthy conditions, and not subject to the same causes that produced the first attack, might not have a recurrence.

Dr. J. STRONG. I will not detain the Association with many remarks at this time, although I think the subject one of great importance. There is more than one side to the question. After reading Dr. Earle's paper, on the statistics relating to the curability of insanity, I felt that it was calculated to do a great deal of good to all of us who are specially interested in the subject. That statistics, relating to the matter of recovery from insanity, are frequently unreliable, there can be no doubt, and I think Dr. Earle entitled to our thanks for calling attention to it. His paper has given Dr. Ray an opportunity to write another, and now the subject is fairly before us for discussion. The point urged by Dr. Earle, that careful discrimination should be made in our reports between persons and cases, when discharged from asylums, I think is exceedingly well taken. That insanity has, in modern times, changed its type, to some extent at least, there can be no doubt. I fail to see, however, in its recurrence, an analogy with other diseases—pneumonia for instance—which has been claimed by some gentlemen who have already spoken. Insanity is a disease involving the brain and nervous centers—a disease which is, to a considerable extent, *sui generis*, and will not admit of close analogy to other diseases. The influences peculiar to our own times tend greatly to change the type of insanity, and with the new era are ushered in conditions and characteristics of our population greatly affecting its curability. How frequently are observed, at the present time, in our insane cases, inherent qualities, that determine the matter of their curability, and which should lead us to go slowly on the subject of recovery, when we come to pronounce upon their condition at the time of discharge from the asylum. While I do not mean to take too discouraging a view of this class of patients, still, if we watch their subsequent course carefully, we shall find that very, very few of them recover. My own course is, when the condition of such patients has become such as to justify their leaving the Asylum, especially when I have a serious doubt as to what the result may prove in a given case, to record it as "improved," rather than "recovered."

Dr. RAY. The quotation of Dr. Schultz from some British publication, to the effect that a man's neighbors might find him insane when nobody else would, is one of those half truths which, unexplained, may do more harm than good. I rise, however, not to furnish the explanation, but to mention a piece of judicial wisdom which it brought to mind. Three or four weeks ago a young woman was brought into a Philadelphia court, from the Pennsylvania Hospital for the Insane, on a writ of *habeas corpus*. One of the gentlemen who signed the certificate, mentioned, as one way in which he obtained his knowledge of her mental condition, that, living next door to her, he could not help hearing and seeing through the open windows and doors, abundant manifestations of insanity. Whereupon the judge declared he was thankful he did not live near a doctor, for, if he should, he might wake up some fine morning, and find himself in an asylum.

The President announced, as the Committee on Time and Place of next Meeting, Drs. Bartlett, Clark and Bryce. On Resolutions, Drs. Chapin, Godding and Reed. On Committee to Audit the Accounts of the Treasurer, Drs. Bancroft, Morse and Camden.

Dr. CALLENDER. Mr. President, before adjournment of this session I think it eminently proper that the attention of the Association should be called to a subject upon which I arise to make a motion. Since I have been a member of this body, now about ten years, I, and all us, have been pleased to meet here regularly one who is not here to-day, and one who will not be here—one whose presence will no longer be seen among us; whose voice will no longer be heard, for it is still, in death. I refer to Dr. Compton, late of Mississippi. If I am seconded I will move that a committee of three be appointed to draft and present a memorial to the Association, touching his death, before its adjournment.

The motion was seconded by Dr. Chenault, and agreed to.

The President appointed the committee, consisting of Drs. Callender, Chenault and Mitchell.

On motion, the Association adjourned.

The members of the Association spent the afternoon in visiting and examining the arrangements of the new

City Hall, under the guidance of the Mayor of Providence, and afterwards the Library and Museum of Brown University.

The Association was called to order at 7.30 p. m., by the Vice President, Dr. Callender.

The committee to audit the accounts of the Treasurer reported that they had examined the accounts and found them correct, showing the receipts to have been \$1,016.58, and the expenditures \$968.69, and cash on hand \$47.89. They recommend an assessment, for the year, of five dollars, on each member.

On motion the report was accepted and adopted.

Dr. Shew then read a paper containing an account of a visit to Gheel in 1878.

During the reading of the paper Dr. Morse asked: You spoke of the male and female sex, had any sexual intercourse taken place?

Dr. SHEW. It is impossible to say. The landlord at the hotel said there had been illegitimate children born. You can readily understand how difficult it would be to ascertain the facts in a short visit, for most of the officials of Gheel are ready to present the best aspects of the commune. But it must occur to any of you that where the irresponsible males and females are allowed to go into the fields to work, there would be more or less illicit intercourse. Nearly all the patients are of the most inferior class of peasants. We have no class of people in America corresponding to these peasants. Our laboring classes have their homes and societies, and their newspapers.

Dr. MORSE. Whenever they get well, how then?

Dr. SHEW. They are transferred immediately by the medical officers and discharged.

On the conclusion of the reading of the paper, the Vice President called on the members for remarks.

Dr. RAY. I am glad that the paper has been read, although the facts related in it were not entirely unknown to us. I say I

am glad it has been read, because it is well to keep such facts before the public mind. It has become the question of questions, whether the chronic insane can be kept any cheaper, as a matter of dollars and cents, than they now can by being mingled together, with the other forms of disease; and I know no better illustration of the wisdom with which these present amateur reformers of the treatment of the insane are governed, than the fact that Gheel, with all the information we have about it, is held up for imitation here. Four or five years ago, when the Danvers Hospital was projected, a gentleman of acknowledged ability, and well known for philanthropy, wrote several articles in the newspapers deprecating any further extension of the present mode of building, and held up Gheel as a model we should follow. Now, I take it that the sane and insane are pretty much the same all the world over, in America as well as in Belgium, and the only differences are such as result from mere circumstances. The nature of men and women will not be very much changed by the difference of latitude, and the nature of disease will not be very much changed by the same circumstance, but I can see no ground whatever for drawing any encouragement for this cheaper method of maintaining the chronic insane from the example in Belgium. I know the experiment has been tried among us, and we have been told that it has succeeded; but I question very much whether many will be found willing to admit that they have been quite satisfied on this point. So far as my own experience goes I have found that the chronic cases cost about as much in hospitals as other cases. Leaving out of place, of course, that class of patients that drive out and have other means of amusement, I can see little ground for any difference of cost. Certainly the chronic insane, so far as my experience goes, have as much excitement, and as many other disagreeable features of insanity as the recently insane, and I am sure that they require fully as much care from the attendants, as much looking after, as much outlay for food, clothing, &c., as any other class of patients.

Dr. DEAPER. I think we are indebted to Dr. Shew for this fresh presentation of the subject, yet I quite agree with Dr. Ray in the views he has just expressed, in regard to the comparative cost of caring for the chronic and the recent cases.

Dr. BLACK. I believe I have no special remarks to make in regard to the paper, except to express my gratification that Dr. Shew has given it to us. I feel gratified for the information he has given us in regard to that institution, of which I was not fully in-

formed, the information being valuable to me. It is a question now of a good deal of interest, and one constantly growing in importance with superintendents, as to what we shall do with our chronic insane, and it is of service to us to know that the system tried at Gheel will not do, that we must look in some other direction for relief for our chronic insane. The question has been presented to our Boards of Directors in Virginia, as to what further provision should be made for them, whether we should pay private individuals for keeping them, or provide for them in private families at all. Being a question before our boards and in the minds of our legislators, any information, such as Dr. Shew has given us, is of interest in aiding us to reach proper conclusions as to what we should or should not do.

Dr. KEMPSTER. I was not present when Dr. Shew commenced reading his paper, but the part I heard interested me very much. Anything coming from a skilled observer, who has so recently visited Gheel, can not fail to interest one engaged in our specialty, particularly in these days when we have so many "amateur reformers" who have drawn conclusions upon the "Gheel plan," without having visited the colony, and are prolific in recommendations to their countrymen to adopt the "Gheel plan," without knowing what they are talking about. Dr. Shew's presentation of the subject is clear, straightforward and direct, and his remarks will certainly commend themselves to all unbiassed minds. In regard to the cost of caring for the chronic insane, I desire to add a few words. In the Institution which I represent, we find that the absolute cost of caring for a large proportion of the chronic insane is greater than the cost of caring for recent cases. Take for instance the filthy and destructive cases, much the larger proportion of these are found among the chronic insane. It may be that we have a larger proportion of this class than many similar institutions, but I think not. I find that the cost of clothing necessary to be furnished because of the extra washing, and consequent destruction, is greater per capita in the chronic than in acute cases. In the acute cases such conditions are not long continued, in the chronic they are, and I am inclined to believe that if you will carefully watch the expenditures for clothing, washing, &c., you will find that the chronic insane cost more to care for, properly, than the acute cases. Such is our experience. One other thought occurs to me. Dr. Shew alluded to a paper written by Dr. H. B. Wilbur, of Syracuse, N. Y., relative to the care of chronic insane in Scotland and elsewhere. For sometime past I have had some

correspondence with the distinguished Dr. W. A. F. Browne, late Commissioner of Lunacy for Scotland, and upon this subject, that is, the care of the chronic insane. It will perhaps be no infringement upon the laws of privacy, which should exist between correspondents, to say, that Dr. Browne does not entertain the same views concerning the care of the chronic insane in Scotland, that Dr. Wilbur appears to, although Dr. Browne, whose name and fame are household words wherever the subject is understood, has devoted the whole of a long life to the practical consideration of the subject, while the other gentleman has had no experience with the subject whatever. A reviewer of Dr. Wilbur's pamphlet says of it, (*British and Foreign Medico-Chirurgical Review*, July, 1876, page 71): * * * "His (Dr. Wilbur's) impressions are received from a few selected celebrated establishments, and are contemplated through an atmosphere so *couleur de rose* that an Englishman standing by his side and embracing the whole field of vision would scarcely recognize the picture." Yet we find would-be reformers on this side of the water quoting from Dr. Wilbur's pamphlet, as though it was the only information extant on the subject. Information derived as Dr. Shew has derived his, is of great value to us. I trust it may be published.

Dr. H. P. STEARNS. I visited Gheel in 1874 and spent two days there. I have been very much interested in hearing the paper of Dr. Shew, and can bear testimony to its general accuracy and faithfulness of detail. I will not occupy the time of the Association, except to refer, in a few words, to one or two of the points touched upon in the paper. And first, the asylum which has been built within a few years at Gheel. As you are doubtless aware there was no asylum for hundreds of years, but the patients were scattered about, and cared for in the cottages of the Canton, which covered a space some five or six miles square. A friend of mine, from Scotland, accompanied me, and our first point was the asylum. I believe I have never visited one, certainly not in this country or England, that appeared to be so desolate and devoid of comforts and homelike arrangements, as this one. The idea of there being any thing of importance in the fitting of the rooms tastefully, with furniture, appeared not to have entered the minds of those in charge; they were, however, very cleanly. I may further say that at this asylum I saw the only patient, with one exception, that I saw in my visits to the hospitals of Europe, tied down to a bed, and in the most uncomfortable position imaginable. This did not appear to be an uncommon practice at the cottages in the town.

Some were in the habit of placing an iron frame over the windows of a room, locking the door, and permitting the patient to get composed as best he could. In other cases the plan alluded to by Dr. Shew, of partially confining the legs and permitting the patient to get about as best he could, was carried out. My impression is, that when I was there, there was a larger number of acute or sub-acute cases scattered about at the several cottages than we should infer from Dr. Shew's paper. I found three or four such, one of whom was a Russian nobleman. He was cared for in one of the best houses in the village, and at the time of our visit was in seclusion, because, as the man in charge said, he was somewhat excited. He however went to the door with us, but at once withdrew when the patient began to talk loud. It seemed a long way to come to be locked up in a room, and secluded from every one, even his attendant, or rather keeper. I think Dr. Shew has referred to the fact that a large number of the patients are kept in most miserable lodgings at Gheel, such as we should deem utterly unfit for any class of patients. The rooms were often without floors, and damp, and with very low ceilings. Sometimes an attic was used, situated over the living room, access to which was by a ladder, which was kept for that purpose. It is not a gracious task to refer in a spirit of criticism, to systems or institutions which one has visited abroad or at home, and especially is this the case when he has been treated with much courtesy, but inasmuch as Gheel is being referred to every few years by pseudo-reformers, as something to be imitated and introduced in practice elsewhere, and as the idea of caring for the insane, while they are surrounded with the comforts and appliances of home life, is exceedingly captivating to the ordinary mind, I certainly think it important that the true state of things, as it exists at Gheel, be fully understood. This should be the case not only among ourselves, but with the profession at large, and in some degree with the public. I think, therefore, Dr. Shew's paper especially calculated to do good. I may be permitted to add a further word. Though Gheel has been in existence a thousand years, and been visited by thousands, has had more written in reference to its system than perhaps all other places and systems together, in Europe, yet it stands alone and unique to-day. I believe the nearest approach to an imitation of it has been in Scotland, where in two or three villages a few quiet or demented patients have been placed in some of the families to board. Each patient is under the special inspection of, and receives visits from some member of the Commission of Lunacy.

at frequent intervals. I believe, however, these experiments are not likely to be multiplied. At no time, so far as I know, has it been recommended by the Commissioners to treat acute cases on this plan, or anywhere outside an asylum, except in licensed houses, and under the care of those who have some special qualification therefor.

Dr. CLARK. It is satisfactory to hear a paper of this kind from an observer, from the fact that we frequently see in the daily press strong recommendations to adopt the Gheel system in this country. It has got to the general mind that this way of treating patients by "farming out," is much more satisfactory than putting them in asylums, and every few months you will see articles from the pens of pseudo-reformers in the press, which indicate that many minds are exercised in the same direction. It is well that persons qualified to judge, in visiting the locality of Gheel, should give their experience of what they see. Any one who has traveled in Belgium, and the countries in its neighborhood, can find out from inquiry that the Gheel system is tolerated now, not because of its excellency, but because of the conservatism for old habits and customs which prevail in all those countries. An old system must become a veritable nuisance before it is reformed. The general impression among the educated of Belgium is in favor of hospitals, and if this cottage system were put an end to, it is my impression, from what I heard, it would not be re-established. Where patients are scattered over a large tract of country, in isolated houses, it would simply be impossible to have strict and proper supervision over them. In large asylums where attendants are selected for their fitness, and continually under observation, it is hard to prevent abuses. It needs the utmost watchfulness to insure the proper kindness and care of the insane when under one roof. It need scarcely be stated what must be the necessary result if the insane are placed in cottages, scattered over a country, and often not within hearing distance of one another, and only visited once a week by a competent officer. Ill-treatment, improper food and scanty care might be the treatment of such, and none to know of this care except those interested to hide the cruelty. That such abuses exist in Gheel, several visitors to it have stated, and yet it is held up as a system of perfection and cheapness for the chronic insane.

Dr. BANCROFT. I wish to make a simple remark. I am very glad that Dr. Shew has brought forward this subject, by the reading of this paper here, because, as has been several times remarked, the whole matter is misrepresented, and I think it should not be left

until the public are informed in regard to the matter of Gheel. At the period referred to by Dr. Ray, when opposition was made in Massachusetts to the building of another hospital, and amateur writers on insanity came forward and very warmly recommended Gheel as a complete system for the insane, the subject took hold of my mind very deeply, and I have ever since then been interested in the inquiry whether it was so, and whenever I had an opportunity I have been glad to avail myself of it, to get light on the subject, because if there is a specific, royal road to peace and rest and restoration for the insane, I would be as glad to find it as any man, after these many years of toil and difficulty on the way. In the fall of 1875 I had an opportunity, (being at Brussels), and availed myself of it, to see the place, and I was glad to get some light and some satisfaction on the subject. On reaching the place which has been so faultlessly described in the paper, I sought first the Asylum, and the late Dr. Bulckens, who was at that time the Superintendent, and he very kindly gave me a liberal interview. I first opened the matter by saying to him that I was anxious to get light upon his system of providing for the insane, with the hope of getting some practical benefit, and the first remark that Dr. Bulckens made to me was, "you must understand that we do not propose this as a system for all classes of the insane; we pretend to no such thing. We only claim this as a good system for the care of such patients as we regard suited to our plans." Then he went on to say that when patients were brought there they were brought at once to the Hospital for trial and observation, for a longer or less time, to satisfy them as much as necessary of the character of the cases. If, after a period of trial, they proved to be persons suitable for residence in Gheel, they were then appointed to a place in the village, and if they were not they were sent to the close hospitals of Belgium. He said that by no means were all who were brought there suitable, for a large number were brought who, after a time, were found to be unsatisfactory persons, such as suicidal and homicidal patients. Violent patients of any kind were not treated there, but sent to the "close hospitals," as he called them. The few patients they had with violent symptoms were very rare exceptions. If they had symptoms that would render them difficult to be kept in a private family, or required special supervision by the members of the family, they were not usually kept. Before his remarks were ended I was ready to start on a tour through the village. I was relieved on the main question by himself, and shown that it was not going to

solve the great question of how to take care of the insane. His facts amounted to this: that in Gheel they selected a very small proportion of the insane as suitable persons to be treated there. I saw that we could go into any of our hospitals, and make up a little colony of chronic patients that would do very well to be boarded in families. Every superintendent knows that he can pick out a few, more or less, whom it would be safe to trust in a private family, under the supervision of the superintendent. This is all Gheel does, but it does not settle the main question. In regard to the merits of that place, as a hospital, my impressions were not so favorable as Dr. Shew's were, as given in his paper. But in regard to the cheerfulness and the fitness as a home for the insane, I fully agree with the impressions that Dr. Stearns received. It was to me an exceedingly deficient house, and, as regards the very things we hear so much about, the proportion of mechanical restraint there was beyond everything I had ever seen in this country. It was in the month of October, 1875, and the number of cases of restraint was two hundred per cent more than you will find in any American asylum. I saw the same thing referred to by Dr. Stearns, of excited persons being bound to the beds in a way that would be entirely unsatisfactory to our American superintendents.

Dr. NICHOLS. Will you please describe the way briefly?

Dr. BANCROFT. The patients were, two at least, tied to a bed. They were excited patients, and were simply tied with cords and strings, to hold them on the bed, with no latitude to turn, or get motion or exercise of any kind. I can not very well describe the details, but this is simply the fact. The patient was bound to the bed as best he could be, about as one will see a person brought to one of our institutions from the country, by half a dozen of his frightened neighbors, bound into a carriage.

On the day of my visit, in one hall there was a row of patients, at least six in number—paralytics, and other persons who had lost the control of their evacuations. They were on stool chairs, and were sitting there as though that was their legitimate occupation. The idea was this, as described by the chief attendant of the house, that these persons would otherwise soil the rooms, and this was the best method of caring for them, a convenient method saving the labor of personal attention. The number of this class I saw in one hall was certainly six.

I was assigned, as a guide, in my visits through the village, a young man, who was a patient, and very much delighted with the place. He was a Dutchman who had been a sailor, and had been

around the world; had become insane, and got better, and had learned the English language. He had been a patient there for a good many years, and knew a good deal of Gheel, and of the world. He was staying there voluntarily, by advice of his friends, having, to a great extent, recovered, and having no other place, I suppose, and not strength enough to control his own nervous system. He was staying there as a safe retreat. He very gladly piloted us about the village. He was an enthusiastic admirer of the place, and put everything in its best light. I saw, under his lead, samples of both kinds of houses, such as the higher class referred to by Dr. Stearns, and, I am happy to say, some very pleasant boarding-houses—places, it seems to me, where a man not properly under self-control might live very pleasantly, and spend his life very happily. Everything was furnished that was desirable, and the houses were quite delightful. But I was surprised to see the general character of the other houses—the village houses—where these patients were boarded at low expense. These higher class houses were quite expensive—more so than our private institutions—but the other houses were such as, if we wished to introduce the system into our country ever so much, we never could imitate. Any of our communities would abandon it in a week. The first inspection of such a village as that would end in disgust. Nobody would be satisfied with it. It would end legally with the next legislature. As has already been said, we have no such people here—people who depend for a living for their families on such a pittance as two or three dollars a week for two or three persons. My recollection is not clear now as to the expense, but I think the cost of one ordinary patient is not more than a dollar a week, and two or three of them are generally boarded at one place, so that a man and his wife and children live on the profit from one to three boarders. You can readily see what would be the result of such a plan in this country.

Dr. STEARNS. By far the larger number of the houses have but one patient, and never over three, with very few exceptions, I think.

Dr. BANCROFT. Then a large majority of the patients I saw were persons thoroughly demented. They were of that class of whom we should give up all hope of relief, and were contented with their lot, indulging only in childish things. A few persons I saw engaged in some mechanical labor, but it was usually very simple. I saw some women making lace. I did not see so much out-door work, and in the houses I saw none with any means of

ventilation or other means of comfort. Many of the garrets, where they slept, were entered through a hole over-head, and access to these attics, where their beds were, was by a ladder. I do not remember that I saw a single place where there was a neat, comfortable and tidy-looking bed. There may have been such, but I do not remember having seen one in those common places. There was not a single mattress bed. I came from there thinking that the question was still unsettled, but that little help was to be derived from Gheel. My impressions agree so fully with what has already been said that I will not go into detail further, to take up the evening. I am inclined, however, to make a single remark, in regard to this question of the care of the chronic insane. It seems to me that it settles all down to this—to the question of expense, of money. I do not know that there is any better expectation for the chronic insane than to provide the best the community will bear. I think that we, who are connected with institutions for the insane, are placed in rather a hard position, in regard to this question. It is properly expected that we should present a practicable plan for the care of the chronic insane, but we have not the power of execution. Nothing can come of nothing, and the misery of the situation, is that what we want, and what the community really want, can not be procured without larger cost than the public are willing to incur. We, who are in exposed positions, are undoubtedly to be blamed a good deal, because we are not sufficiently ingenious to survey the way out of these difficulties. But I believe it is true that the asylums of to-day furnish the best system known for the care of chronic and pauper insane; yet the pressure on the question of cost is so great that those who hold office, and those who have public affairs to settle, have not the courage to carry their own honest convictions against the clamor of politicians. The whole question comes to this, in my opinion. I have no doubt that if the framers of public sentiment—if the politicians believed they would be sustained in advocating the care of the insane in regularly managed institutions, they would be taking that stand in a very short time. That is the result of my observation at home. This same question of economy is the great popular outcry everywhere. It has come to be the open door to office, and every man who wants office has got to yield to that, and do something which will prove that he is all right on that question.

A large majority of the pauper insane of New Hampshire are in the alms-houses for the ordinary poor, and some little provision is

made for those whose liberty must be restricted in some side building, where they get along as best they can without attendants. I am in a situation to know that the men who have these on their hands, while they feel obliged to carry it through, because the public demand it, still confess it is all wrong; that with the means put into their hands, and the price they receive, they can not be taken care of; that the money spent on them does not bring one-quarter of the good results it would if spent in an institution adapted to the work; but when we are going to get relief, when we are going to be satisfied with these fruitless experiments, I do not know. Massachusetts is in a boil all the while on that question, and likely to be, and men are continually projecting plans. One proposes the Gheel system; another the Scotch boarding system; another proposes sending these patients out into the neighborhood of asylums, and makes very specious arguments to show that they can thus be sent out to farmers, who can make use of their services, and board them at low rates; that they will be taken care of, and that the result will be they will be better provided for, at less cost than they now are to the community. Many other fine things are said by the advocates of the theory. This is one of the coming questions in Massachusetts now. We shall hear more from it each year.

Dr. CURWEN. I wish to ask the Doctor whether those gentlemen who advocate that measure would be willing to try the experiment by taking those persons in their own families?

Dr. BANCROFT. I will answer that in the language of a good man who is now deceased. I once met the late Dr. Howe, and taking a ride in the cars with him some little distance, took up the subject under discussion. He was then advocating that the aggregation of mankind, in masses, was bad, both for the insane, the paupers, the blind and so on, that segregation was the cure, and what he would do with the insane, would be to board them out in families. He advocated that plan at length. As we came near to our journey's end, I said, "Dr. Howe, if this system is adopted, how many will you be willing to take into your family?" After a moment, he said, "my preaching is better than my practice."

Dr. CURWEN. I thought that something like that would be the answer.

Dr. STREW. I had not the pleasure of hearing the paper read, but heard remarks since, that interested me very much, for the subject seems to be analogous to, and in connection with the institution of which I have charge. It is a matter that has been

brought before the Commissioners, and some proposals have met with favorable consideration. The idea of colonizing that class of patients, if I understand the proposition aright, appears to me easily carried out. It has been tried in the vicinity of New York; farming out children in that way. I presume that most of the gentlemen present are aware of the complaints made and the failure of the experiment. We must understand, that if we send a class of patients out into families to be taken care of, the only inducement will be merely to secure the small compensation, and so long as they can secure that, they will have no other interest in retaining those under their charge. They can not be expected to treat them with the same attention that the public is always eager to demand. We see how it is with ourselves when that class of pauper patients is sent to us; we have to receive them from the emigrant dock, from the almshouse, from the penitentiary, from the work-house and other places. There are a great many evils connected with the present system, as I find from my experience in this matter. One is the accumulation of these old harmless incurables on our hands. They have to be supplied with the same diet, and provided for in the same manner as the paying patients, otherwise there will be a corps of inspectors after us, whose unmerited censure is probably not so often meted out to you as it is to us. They take it upon themselves to go among patients, interview them, and inspect everything in the most minute manner. Their clothing and bedding must be perfect, and their persons in the most satisfactory condition, or the responsibility falls upon the man in charge. The attendants who have the care of these patients, have greater inducements to be more attentive than families in the country, away from the influence of exacting inspectors. Another type of patients is sent here because they can not be kept at home, they are too troublesome to their friends, but we have to receive them, they take up the room of which another type of patients stand more in need, and who might be benefited. There has been a proposition made, as I said before, that was treated with some consideration, namely, to colonize them on a different principle. It is recommended to have a number of them boarded and employed on a tract of land, out in the country. This tract of land to be of easy access by land or water, of sufficient size to admit of cultivating it as a farm, with the necessary facilities and implements so as to prove self-sustaining. This plan I think is adopted somewhere in Suffolk county, on Long Island. The proposition met with approval because such patients could be made

comfortable there, much more so than in keeping them in almshouses, the women performing their usual in-door functions, while the men cultivate the grounds and discharge the out-door duties, the same as is done now. This has been suggested, as I said, on the supposition that it would be self-sustaining, or nearly so, and be one of the most feasible ways of getting rid of the difficulties before mentioned. An institution of that kind might be established and conducted in every county, although perhaps not on as extensive a scale as the one spoken of. The per capita cost at our asylum is less than twenty-six cents per day, and we are required to come up to a prescribed standard in every particular, with the table, clothing, bedding, etc. As implied, this new arrangement seems to me productive of relieving us, and greatly improving the condition of these helpless and harmless incurables who are now crowding our institutions.

Dr. D. CLARK. I would like to ask about the agreement made in regard to these patients, whether when they pay or do not, their work is to be counted as part pay? What arrangement is made with the proper officials for those who are farmed out?

Dr. SHEW. The patients themselves derive nothing from their labor, but persons who board them receive pay from the government or their friends, according to the class of patients. While I am up, if you will allow me, I will add one or two words to the paper. I allude to the fact that intelligent officers in Brussels and Antwerp gave me the impression that the intelligent, thinking part of the citizens do not approve of the system at Gheel. They look upon it and tolerate it because it is old, and allows certain parties to take care of a quiet class of patients at a moderate cost, and that impression is substantiated by the fact that the Belgian government has erected eight or nine new hospitals within the last twenty years; all of them large hospitals. As Drs. Bancroft and Stearns have said, it is only the quiet class of demented patients that are sent to Gheel, and detained there. Patients are brought from England and Germany and other places annually, because of the reputation which Gheel has. I think there must have been considerable improvement in the Asylum, or Hospital proper, at Gheel, since 1875. The present chief medical officer, whose name I can not recollect at this moment, has introduced many modern improvements, which we find in our own institutions and asylums. As I said in my paper, there were only eighty patients in the Asylum, while there were accommodations for one hundred. None of these eighty patients were restrained, and I saw all the

rooms. The doors and windows of the building itself were open. It was a pleasant season of the year, and in the yard there was a profusion of flowers in beds. The wards had recently been re-painted and renovated. Everything was bright and clean. I inspected quite carefully, and I could take no exception to any part of it. They had introduced bath-rooms and closets, and the arrangements in the kitchen were particularly desirable. None of us would have refused an invitation to sit down at the table and take a meal. Everything was bright and clean and comfortable. The contrast was so very great, compared with the surroundings themselves, that that perhaps made it so desirable. No description can give you a proper idea of the cottages. Those shanties that sprung up so rapidly around military posts of our own army, for the freedmen, would give some conception of these hamlets. They were exceedingly low, with a door in front and a window in the rear. They had no board floors. You can imagine what it would be in the cold season of the year, when the doors would be closed. The entire management is so markedly against the reputation of the system described as existing at Gheel, that I think any one having experience with insane here, would come away, feeling sure that no other country would pattern after the commune of Gheel. I am sure no other community would tolerate it. The first visit of a legislative committee would wipe it out of existence, and the people and the "amateur reformers" (as some have been pleased to call them this evening), would be the persons most unlikely to tolerate any such care or treatment as that found at Gheel. I wish to say apologetically, that this paper was prepared, not for this Association, but to meet the objections of these "amateur reformers," and read at a meeting of our State Medical Society. I consented to read it here, because there seemed to be nothing special at this present time. I am glad to know that the subject has elicited discussion, and that there has been so much interest manifested in it.

The VICE PRESIDENT. That is certainly the sense of the Association.

Dr. LATHROP. One gentleman who has spoken, alluded to the treatment of the chronic insane in connection with the poor. There is at Tewksbury, Mass., an asylum for the chronic insane, conducted on a plan similar to that he has proposed. It was thought when this was instituted, that the harmless and incurable insane might judiciously be isolated from other insane patients, and cared for in connection with paupers. With this idea, a recep-

tacle was established, accommodating about two hundred and fifty patients, and placed under the care of the Superintendent of the State Almshouse. It was opened in 1866, and has now, therefore, had a thorough trial, and I would say from my own experience there, that I do not think that this disposition of the chronic insane is by any means the best that can be made. The fundamental error underlying the plan, is this: that patients who are harmless and require no treatment, will continue indefinitely in that condition. The truth is manifestly the reverse of this. We had one case, a woman, who had been nine years in the Northampton Lunatic Hospital, and during several years previous to her transfer, had been one of their mildest cases. In a few weeks after her admission to our Asylum, she became excited, and this condition persisted so long as to result in her removal again to the hospital. This case illustrates a very common experience. Such transfers are evidently attended with expense and injurious delays. I think that an institution for the harmless and incurable should be established on the grounds of a hospital, adapted to the treatment of acute cases, and under the same superintendent. Economy might be effected in the construction of the buildings and in the number of attendants employed. Transfers could be made promptly, and thus the institution would be kept always filled, while at no time would it contain excited cases, or those requiring the special care of attendants. I am convinced that even harmless cases should sleep in separate rooms if practicable. Undoubtedly, as Dr. Bancroft has said, the people demand cheaper buildings than many of the large hospitals. These can, however, be erected economically and advantageously, in connection with an insane hospital already established.

Dr. NICHOLS. Before the discussion of this paper is closed, I would like to ask Dr. Kempster, in relation to the results of his experience which surprised me somewhat. There not being accommodations for all the insane of Wisconsin, it may be that the violent, excited and troublesome class of incurables and chronic insane are left on his hands, and the expense of their care may exceed that of the chronic insane generally. I have not supposed, in the treatment of this problem in my own mind, and I may say I have very distinct views of the best solution of it—that we should be compelled to meet a necessity of greater expenditure in chronic cases than in the acute. On the contrary, I supposed that, on the average, the whole chronic class of indigent insane, (and it is of those we are all speaking, I presume), can be taken care of at considerably less than the acute cases.

Dr. KEMPSTER. In answer to Dr Nichols, I would state that the comparative cost of caring for acute and chronic cases of insanity, relates only to those who are, or have been in the Institution in which I have charge, and that the cost of taking care of the chronic insane has been in our Institution greater than the cost of caring for acute cases. I mean the per capita cost of the average case. In reference to the remark made by the gentleman from Massachusetts, relative "to the indigent insane," I would state that Wisconsin considers the insane as special wards of the State. We have no cases in our hospitals corresponding to the "pay patients" in eastern institutions; the State makes appropriations for all and demands that all be treated alike. We thus have a fair way of determining cost. The day laborer who becomes insane, and who lived in poverty before his admission to the hospital, must be cared for after admission in the same manner as the millionaire.

Dr. NICHOLS. Are all the insane provided for? Are you not obliged to discharge those cases that you can best discharge, those deemed most harmless?

Dr. KEMPSTER. We are obliged to discharge some cases, but in this we have no choice beyond exercising discretion as to who is likely to be most benefited by further treatment; generally, however, we discharge those who have been longest in the hospital.

Dr. NICHOLS. You must have an accumulation among the chronic cases, among the violent, so you can not weed them out any longer than to discharge those longest on the books.

Dr. KEMPSTER. Our Hospital has been in operation more than six years. We take our patients from the State at large, receiving many when we first opened from receptacles, where they had been formerly kept; I think we have a fair average of insane persons. In my remarks about the cost of caring for the insane I assume that each class are properly cared for, cared for as they should be, all being treated alike. If inferior accommodations in the way of buildings are to be provided, if the chronic insane are to be fed upon mush and molasses, and have only straw to lie upon, and go about partly or entirely nude, that is another matter. We do not discriminate in that manner, all are treated alike to good beds, good clothing, good food, and good care; therefore, I think the experiment of cost, determining the difference in cost, can be called a fair one. If the cases are selected, if you withdraw the rich from the poor, and treat one class to the best that experience dictates, and place the other under the most parsimonious conditions, the re-

sults would be otherwise; but if all are treated alike, the cost of caring for the chronic insane, rich or poor, will be found greater than in caring for acute cases.

Dr. NICHOLS. It seems to me that the course pursued by Wisconsin is the one that every community ought to pursue. Every State is pecuniarily able to take proper care of its own insane, excepting possibly some newly organized Territory in the west, or some State impoverished by the late war, but such exceptions will be temporary and are not to be taken into account in this discussion. I do not, however, expect that any State will provide small first-class hospitals for all its insane. Dr. Bancroft says that New Hampshire will not do it, a prosperous State of considerable wealth, whose excellent Asylum has always been economically, as well as skillfully managed, and is very popular in the State. I think hospitals for two hundred and fifty patients have material advantages over those for a larger number, but having long been confident in my own mind that no State will provide for all its insane in separate hospitals for two hundred and fifty patients, that there must be larger hospitals or two-thirds of the dependent insane will go to the almshouses and jails. I have long, as is well known, been an advocate of large institutions, simply because large institutions, properly organized and equipped, and exclusively devoted to the care of the insane, are a hundredfold better than no institutions at all, that is for say two-thirds of the poor insane. Where a State has provided as many hospitals as its legislature can be induced to provide, especially where, if the State is a large one, it has provided hospitals in different localities so as to be practically accessible to the whole population of the State, and the insane begin to accumulate in the almshouses and jails, then it has long seemed to me that the only practicable solution of the difficulty is the one just suggested by Dr. Lathrop. If, under these circumstances, legislatures are asked to supplement existing institutions with comfortable wards, but built, furnished and fitted up at much less cost per patient than the original structure, experience shows that they will. I would not here say at how less a cost the added wards for the chronic cases should or could be provided. I would insist upon their being every way comfortable, and in substantial conformity with the propositions of the Association relating to the construction, furnishing and fitting up of accommodations for the insane, but it is certain that they need not cost per patient provided for, more than one-third the cost of our original establishments for two hundred and fifty or three hun-

dred and fifty cases. This is my strong impression that the chronic poor insane can be comfortably and properly taken care of at considerably less cost than the acute and active cases, especially under the same superintendence, and in conjunction with the treatment of acute and active cases. The diet, attendance, special provisions for exercise and recreation, may all be less costly. Humanity, professional spirit, and the interests of the State, require that acute and presumptive curable cases shall have the best chance of recovery, and I need not remind my hearers how costly the treatment of such cases often is. The special attendance by day, and another by night, sometimes for weeks, and occasionally for months, now and then required by all acute cases, costs more than the entire comfortable support and adequate treatment of three or four chronic cases. It seems to me that the relative cost of the treatment of the acute and chronic insane is being fairly solved in the State of New York. At Utica, for example, the proportion of acute cases is large. At Willard nearly all the cases are chronic. Both institutions are ably managed, and the inmates of each receive appropriate care and treatment. I have no reason to suppose that too much is spent in one, or too little in the other, and yet their reports show, I believe, that the current cost of support at Willard is only about one-half of that at Utica; and as the Institution at Willard becomes larger, the large farm more improved and productive, and the labor of the inmates more skillfully utilized with experience and effort, the present cost of support may be somewhat diminished, while the cost per patient at Utica can not properly be much diminished as long as the Institution is in the main devoted to the care of acute cases. Under the system of providing for the acute and chronic insane in the same institution, the supervision necessary to secure humane treatment can be exercised by the superintendent, while the most of his time will be given to the acute cases. There should be in every case, of course, a medical staff proportionate to the number and character of the patients treated. The argument in favor of institutions for two hundred and fifty patients, that the superintendent shall have the whole care of his patients seems to me to be an unfair one to present to the public and unjust to assistants. Every superintendent knows that he could not take exclusive care of more than fifty patients in addition to the discharge of general administrative duties, not more than half that number of acute cases, and I think that assistants have shown themselves more capable and efficient than that argument implies.

As Dr. Bancroft and others have remarked, this is a very important as well as a practical pressing question. We must present a practical solution of it, or it will be taken out of our hands, and we shall be set aside as unequal to the just demands of our position. The chronic dependent insane, of whom there are large numbers, must be taken care of, and the question what is the best plan of doing it that the representatives of the people will adopt, I am satisfied that the one I have just stated, the one that is being carried into substantial effect in some of the leading States of the Union, and the one recommended by this Association in 1866 is the only possible one.

Dr. RAY. What do you mean by supplementing?

Dr. NICHOLS. I mean additions to a hospital edifice of the same character. Such additions may be detached or otherwise to suit the site or the views of those in immediate charge of a particular hospital. The Association has not approved of detached wards, but while I think a continuous structure preferable, if the construction of the original edifice and the site admit of it, I do not think detached buildings or wards as objectionable as some of my friends in the specialty do.

Dr. KIRKBRIDE. I have so often spoken on this subject that I intended to keep quiet, but my friend, Dr. Nichols, has, on the present occasion, seemed to me, if I understood him rightly, to have expressed sentiments that I trust this Association will be very careful about adopting. It seems to me, at any rate, if these views are correct, we ought to go to our legislatures and tell them to cease building hospitals such as we have heretofore been recommending. Now I believe there is no State in this Union, but is able to put up all the hospitals that are necessary for the proper accommodation of all its insane. I have always believed that, and I can see no reason for changing my opinion. I have not been able to see how we are going to put up proper buildings for the care of the chronic insane for less than for the acute cases, nor to do it more economically than we are now doing. The acute cases require no more space, no more clothing and food, no more fresh air, no more warmth than the chronic cases, and this Association has always declared that the acute and the chronic can be best taken care of in the same institutions. The reason is obvious. The expensive part of the provision is made for cases supposed to be curable, and those who are incurable get the benefit of this provision without extra cost. We have declared that six hundred is the maximum number for any hospital. Many of us believe that

that is much larger than is desirable, although if the two sexes are in different hospitals, that number may be placed in one locality. I have no disposition to occupy the time of the Association, but I trust we shall be exceedingly careful how we give countenance to the idea that the chronic insane are to be treated in a different kind of structure from what is proper for the acute cases, and especially how we countenance the idea that the people of this country are not able and willing to take proper care of all the insane, no matter what is their condition.

Dr. MORSE. In regard to the care of the acute and chronic insane, we have the same plan as in Wisconsin. We have no pay patients. My experience has been, taking all the patients as they run together, that we have a certain percentage of chronic insane who are more destructive, (taking it through an entire year), and who are more expensive than the acute for these reasons. In the acute cases their destructiveness continues only for a short time with the majority of them; while I have in my Institution quite a number of chronic cases who are continually in a state of mischievousness, and will likely remain so until they settle into a state of complete chronic dementia. I find they will take anything in their fist they can get, and when opportunity offers they will strike their fellow patients, doing them injury, and that they will continue on in this way for years. On the other hand we have a large number who earn their own support. During corn-planting we had on the farm eleven men who worked at planting corn, and some of them would plant all day. Last summer we had a number of men who could mow a number of hours in a day, and taking into consideration their condition, they did well. We have eight men in the garden. We have a gardener and our men work under his supervision. Some of these gardens are a quarter of a mile from the Institution, and we have men we can trust to go there and work. Taking these who are thus self-supporting, the cost is much less, but if we isolate them from the Asylum and take only the bad class, then unquestionably the acute insane would be a much greater burden and expense to others. Then all of us are compelled to take a different course with the acute cases as compared with the chronic ones. We all expect to give to the cases susceptible to treatment, more care and attention than to the chronic cases. We take a case that has been in ten years, we do not expect him to receive the same treatment that an acute case would in the same condition, there being little hope of recovery.

Dr. Steeves then announced the death of Dr. John Waddell and moved that a committee of three be appointed to prepare a memorial of Dr. Waddell.

The minutes of the proceedings of the day were read and approved.

On motion, the Association adjourned.

JUNE 11, 1879.

The Association was called to order at 9.30 A. M., by the President, Dr. Walker.

The Secretary read a letter from Dr. A. E. Macdonald, regretting his inability to attend this meeting.

Dr. Kirkbride introduced to the Association, Mr. Charles T. Coffin, a member of the Board of Charities, of Massachusetts.

Dr. Nichols introduced Mr. George W. Jones, trustee of the Willard Asylum, and Dr. Curwen introduced Dr. George Brown, of Barre, Mass., who were invited to take seats with the Association.

On motion of Dr. Ray, it was resolved that the Association send delegates to the Rhode Island State Medical Society, now in session in this city.

The President appointed as delegates, Drs. Ray, Kirkbride and Nichols.

Dr. Draper then read a paper on "Responsibility of the Insane while in Confinement in Hospitals."

THE PRESIDENT. The paper of Dr. Draper is now before the Association for discussion.

DR. RAY. I listened to the paper with a good deal of interest, but I presume the Doctor will not be very much surprised if I say in regard to many points which he made that I must proclaim my dissent. I speak under some embarrassment because it comes to me somewhat like a personal question. It is well known, I suppose, that forty years ago, I proclaimed a very different set of doc-

trines, and I have continued to proclaim it ever since. I have maintained that the general rule on this subject is, that of the irresponsibility of the insane. I do not affirm that there is no such thing as responsibility in a state of insanity, but I do say in any contested case the burden of proof lies with those who assert responsibility. Now if I heard the paper aright, the doctrine was affirmed that the insane, even in hospitals, might be regarded to some extent, certainly, as responsible. I had supposed that we all had come to the conclusion that the insane in our hospitals, however it be otherwise desired, were not to be regarded as responsible for what they said or did. I think every other idea on that subject has been practically abolished and repulsed whenever it has made its appearance here. I do not mean to say that the insane may not have some sense of right and wrong. They may *know* when they are doing the wrong act or the right act; but that does not fulfill my idea of responsibility. What is responsibility? Well, I will not detain the Association with any metaphysical notions about it. It is enough to say that responsibility comprises a system of rewards and punishments. Does any gentleman here say that he would ever punish a patient for anything he says or does, and if he will not punish in the hospital why out of it? It may be said, perhaps, that rewards imply responsibility. Unquestionably a patient may feel that by doing so and so, he will earn some privilege—some reward. That only implies a certain amount of self-control. This may be as much a matter of the nervous system as of the mind, for we know that patients are sometimes urged on to do some destructive act, knowing they can not resist. Do we not recognize the same thing in all our management? If you find an attendant has abused a patient and you ask him why he did so and he says, "The fellow spit in my face and he knew better." We can not deny that that may be very true, perhaps, but we do not punish the patient, we punish the attendant. Now admitting that, to a certain extent there is responsibility, how are you going to find it out? How are we to measure it? How are we to say this one is responsible for whatever he does, and that one is not? If any one has found out how to arrive at the exact measure of responsibility, I may say he is more fortunate than ever I was. I think the Doctor asserted that any patient, even in a hospital, who was inclined to shelter himself against the consequences of a criminal act, by taking advantage of his own insanity, showed by that very fact that he was responsible; that the knowledge of his own insanity invalidated the plea of

insanity. Such has not been the result of my observation certainly. I think I have found men—some of the craziest patients in the house—discussing that very matter and declaring positively that if they did so and so—committed a criminal act—they would not be punished because they were crazy, and we know that many a patient acknowledges his craziness and acts accordingly sometimes. I know this doctrine has been upheld and put in practice in some criminal courts, I think within some four or five years. The superintendent of an English asylum affirmed it in court. Although he admitted that the man was insane, he thought he might be responsible for it too, simply because he knew better. Now it appears to me it is indifferent, when the disease is fastened upon a man's brain, what part of the brain it actually attacks, or, if you like the language better, what part of the mind is affected, and I believe that whether the trouble is in the moral or intellectual powers, so long as it is a departure from the normal condition, the burden of proof remains upon those who allege responsibility. The presumption is that it has affected the proper course of his sentiments and thoughts.

Now the question has arisen and prevails, to some extent, whether or not the burden of proof ought not to be changed, whether it is not to be presumed that the man was responsible and so regarded until the contrary is proved. When I have heard this doctrine uttered by superintendents of insane asylums, I must say it excited in me no other sentiment than that of surprise and wonder. I wish now that this matter might be fully discussed in order that the Association might not be held responsible for a doctrine, so questionable in its correctness, and so mischievous in its application.

- In regard to the memory of the insane, that often becomes a matter of some practical importance, because the narratives, or statements, of insane persons are, you know, sometimes brought into litigation, become evidence in courts of law. I do not suppose there should be much question as to that. The memory in some persons is more or less impaired and in some instances it is correct. The question is, whose is correct and whose is not, whether you may depend upon this person's memory and not depend upon another's, whether you may depend upon certain things in one connection and in another not anything, and the difficulty is increased by the fact that we never can know how much of this lack of veracity, so common with the insane, arises from disease or the influence of moral depravity. Where are you

going to draw the line? How will you make any proper application of the facts in a matter so conjectural as that? It has become somewhat in fashion in the English courts now to admit the testimony of insane people. I think with our knowledge of insane people, we, ourselves, would hardly like to be judged by the evidence of insane persons. I certainly think the evidence of recovered patients, as Dr. Draper intimated, is to be received with many grains of allowance.

Dr. NICHOLS. To my mind, Mr. President, the paper is somewhat indefinite as to the degree to which patients should be held responsible for their acts, as well as in respect to the degree in which motives may be presented to them. We may present motives to the insane, just as we do to children, to influence their personal conduct, when we may not hold them to a legal responsibility. The question is, what shall those motives be? They should never be harsh, and should be carefully adapted to individual conditions resulting from temperament, education and the character of the mental disease. If an ill-natured patient, without provocation, spits in an attendant's face, I would hold him to a qualified responsibility, by telling him that I was sorry that he could not refrain from such an offensive and and unjust act, and that he must go to a more disturbed ward or to his own room, until he could control himself. This is practically a punishment for the offense, though the word *punishment* has not, and should not be used, and presents a motive to do better, which in three cases out of five has the desired effect. Cases undoubtedly occur in which men of the criminal class commit criminal acts after they become insane from habit, and the same motives that induced them to commit such acts before they became insane, but such a man could not be sent to the penitentiary. Everybody will revolt at that, and there does not appear to be any other safe doctrine than that of Ray and others, that the insane are legally irresponsible; the burden of proof should certainly be upon the party that alleges the legal responsibility of an insane person. Very great care should be exercised in holding insane persons to a qualified or partial personal responsibility. I think I have known sensitive, conscientious patients, who, after reproof for acts that would be very naughty in some people, injured by the effort they have made to refrain from such acts. The strain of the mental effort was more than the disordered brain could bear without injury. In some cases, you may present the strongest moral motives that occur to you, without harm. The trouble in such cases is, that your reproof and appeals

are not likely to do either good or harm. A condition that has been called "insane impulse," has been held to absolve persons from responsibility for criminal acts. Experts in insanity have been derided by the press for sustaining that plea in criminal cases. The derision is not to be minded if it be true that there is a form of insanity that comes and goes like a flash of lightning. I have known persons to have a single undoubted epileptic seizure, and not be known to have another; and I can conceive that in the briefest "furor" of such a seizure, a person might commit a criminal act for which he should be held both legally and morally responsible, but I have never personally known such a case, nor have I ever seen a case of insanity of that transitory character, that has been held to have existed in a very few cases. With our present knowledge and observation, I think we should hesitate to consider "insane impulse" as among the recognized forms of insanity that absolve from legal responsibility. Insane persons are often impulsive in their acts of violence, but it is quite a different thing when a single, brief impulse is held to constitute the whole disease.

Dr. CLARK. I do not know that I have anything particular to say on the subject matter of the paper. I agree to some extent with the opinions of Drs. Nichols and Ray. We should be cautious in opening the door too wide in our definition of legal responsibility in the insane. I have not the least doubt in my own mind that motives guide the actions of insane people, in a degree commensurate with their condition, in much the same way as the sane are affected. We will never come to solve the enigma with exactitude. How far this is the case, because there is a border-land unexplored between the sane and insane that I am afraid human research will never reach. There is an undefined barrier line which no observation nor hypothesis can reach nor go beyond. A definition of insanity may be so wide as to include many, who in society, are called sane. We have all seen many so-called sane people, who, in violent outbursts of passion, would be said for the moment to be insane. For the time reason seemed dethroned. The converse is also true, and many insane, whom the public would call sane, are really unhinged, but who display no temper on trying occasions. Many such are quite capable at times, of discharging the duties of citizenship. This intermittency is seen when functional disorders, such as are seen in kleptomania, temporarily derange the person. At other times none can say such are not able to transact business in a proper manner. Hence lies the dan-

ger in experts being too positive in making assertions about such doubtful cases. In courts of law the court alone decides on the responsibility of alleged cases of insanity. This relieves the medical witness, to a great extent, of a weary burden, and hands over the case to a tribunal ill-qualified to judge of the merits of the unfortunate defendant.

Dr. BANCROFT. I rise to thank Dr. Draper for his paper. I am very glad that he prepared it and read it, and I should be glad to speak upon it if I supposed I could throw any real light upon the subject. It seems to me that Dr. Clark has said about the right thing; that it is an exceedingly abstruse question, and a difficult thing to form a definite opinion on this question of responsibility in this class of persons. Responsibility and irresponsibility in this, border and intermingle so closely that it is a matter of exceeding subtlety to form an opinion of general application. I do not know that, in the nature of the case, I can see any reason why some persons who are insane, and proper subjects to be in insane asylums, (as I understand Dr. Draper to confine his paper to persons in asylums), I do not know, I say, in the nature of the case, why there may not be responsibility in some such insane, to a certain extent. We hold, I suppose, that mental defects are dependent on a disordered condition of the physical organ of thought. I believe it is true, too, that the physical organ of thought can be diseased in one direction and not in another. The mind may be reliable in some things and still diseased in others. Now if that is true, I do not see why there may not be such a pathological condition in the brain, that a person would be responsible in certain lines and still not be responsible in others, but it is so difficult to analyze this subtle condition, that I should hold with Dr. Clark, in what he has just said, that we need to be exceedingly cautious about adopting a dogma in regard to it. I do not believe we can adopt a dogma on this subject safely. It seems to me the gist of the matter was shown by Dr. Ray. What do we mean by responsibility? If we could define it so all could understand it alike, we might approach a solution of this question, but there is the difficulty. It seems to me a thing on which we can not lay down a doctrine of universal application. It is an individual matter. It is a matter to be settled in each insane person by the consideration of that person's condition alone, with its chain of circumstances and facts. The circumstances have got to be taken into account in order to arrive at an opinion in that particular case, and the opinion you might arrive at in that particular case may be no guide in another. So

it seems almost a hopeless task to say in terms, that the insane who are proper subjects for the asylum are responsible or not responsible. I do not know that I have any doubt that there are instances of responsibility, and I agree, too, with Dr. Ray, in the general doctrine, that the insane are not to be regarded as responsible. Then there may be in any individual, degrees or limits of responsibility. To a certain extent, a person might be, perhaps, held responsible for his acts, but beyond that extent he may not have that power. For example, take one of those mischievous persons whose faculties are to a great extent unimpaired, but yet has a morbid tendency to mischief, as described by Dr. Draper. He is quiet and intelligent, but poisons all with whom he comes in contact, you are constantly impressed that he could restrain himself if he would, and this is true within certain limits. Within a few days I have seen an instance. A strong motive brought to bear directly on such a man was sufficient to induce self-control, and yet there was indubitable evidence that the impulse to mischief was the product of disease, and not free exercise of the will. The strong motive roused the will to self-control for a short time, and the conduct was correct, but, after a short period, the force of the morbid impulse overcame that and the motive, and he lapsed from good behavior. Now it seems to me just, that such a person should be held responsible, within certain narrow, but wisely fixed limits, for his conduct, notwithstanding the condition of insanity in the case. Practically this modified recognition of responsibility is for the good of the patient.

Dr. STREW. It gives me pleasure to rise, not for the purpose of enlightening any member of this Association, but to give my endorsement to the paper that is now before us for discussion, that is, the responsibility of the insane. I hold it is a subject of the most vital importance, not only to every member present, but also to society at large. We have conversed upon our professional responsibilities in this matter, among ourselves and our households. Still there is another responsibility resting upon us, and the public are looking to us for some action. The time is approaching when the question has to be definitely answered, and that too by men of our own calling and standing. The view of Dr. Clark, member from Canada, expressing the necessity of a jurisprudential decision, is a very proper one, yet after all it depends upon medical testimony. Most of us, no doubt, have had cases under our observation that will serve as illustration. Permit me to cite one or two bearing on a particular point. A few years ago, as many of

my friends will recollect, a prominent man of Wall street was arrested for fraud and imprisoned. A strong effort to release him was made by his friends, money and influence. One of our professional brethren, in New York, who stands very high, and whose name is familiar to you all, made most strenuous efforts to excuse him, on the plea of moral insanity, which effort came very near ruining his professional character and influence, had not his excellent reputation saved him. This plea of emotional or moral insanity has, as I remarked before, assumed the most extensive dimensions, and I entertain no doubt that most of you, gentlemen, will bear witness with me to the fact that under moral insanity it would be much more difficult to-day to determine who is sane than to decide who is insane. We find men whose trained intellect, clear judgment and discriminating powers, befit them for prominent positions, or enable them to engage in any occupation or business, and who, upon the slightest provocation, will draw a pistol and shoot you down.

I am very glad, indeed, this grave question has been brought before us, and I should be pleased to hear the opinion of many of our venerable associates here present. The seriousness lies in the undeniable truth that all persons having inherent or marked tendencies to mental derangement, or who are known to have been inmates of insane asylums before, have after the commission of an offense, strong claims on our consideration. Our Creator endowed us with a mind. He gave us also the means of guiding its dispositions, its passions and affections, and He will hold us accountable for the use we have made of it. The law does not excuse crimes while perpetrated under the influence of intoxication, why not hold him responsible who misdirects or omits to control his mind when influenced by violent temper.

Dr. STEEVES. I am conscious that this is a subject which should be approached with a great deal of caution; if the paper and the utterances here, are to be regarded as expressions of opinion on the subject of the legal responsibility of the insane, because our statement will be noted by the legal profession and the public. There are, perhaps, two aspects in which the paper may be viewed and discussed. First, as to the legal responsibility of the insane, and second as to the modified responsibility which the writer believes attaches to all the insane in asylums, and which may be profitably recognized, and made use of in their better government while inmates. The present discussion has turned upon the first

of these divisions. If I apprehend the Doctor rightly from the text of his paper, the discussion has been somewhat foreign; that the paper is not controversial of established doctrines, and from this view I beg to thank Dr. Draper for his paper, which I think contains many valuable hints for our instruction in the management of the insane while in the asylum, through according and attaching to them a modified responsibility. If I have misapprehended the Doctor he will kindly correct me.

Dr. DRAPER. Dr. Steeves fully apprehends the object of my paper. The discussion has stepped beyond the scope of it considerably. I did not design to touch the question of criminal responsibility at all, and thought I had completely barred it at the outset, when I stated that it had been sufficiently settled by one whose views I look upon with such satisfaction in regard to this question as to say amen. This is a discussion of the accountability of patients in asylums, while under treatment, and the amount of responsibility that we would actually accord them; and the whole paper was designed to open up the subject and ascertain the views of members in that respect. The special idea I had in writing the paper was to arrive at an expression of opinion as to whether an assumption of responsibility, to the fullest possible extent by ourselves for our patients, was not a thing to be studied and to be increased for the good of our inmates. I did not desire to discuss it in connection with the criminal responsibility of patients at all. Nobody has a more profound respect for Dr. Ray, or would endorse him more fully in a court of law than I, but the discussion I intended to bring out was as to the responsibility of our patients to ourselves.

Dr. STEEVES. I am very glad that the statement has been made. I conceive that the Doctor's motive was calculated to do a great deal of good, and that we may all be benefited by making use of the thoughts put forth in the paper.

Dr. DRAPER. I will further say that I do not wish to establish any dogmas in the matter, or to elicit any discussion for which the Association would be responsible, but rather to open the subject whereby I might learn something as well as others.

On motion, (the hour of adjournment having arrived), the paper was laid on the table for the present.

Dr. RAY. The delegates appointed for the purpose of visiting the Rhode Island State Medical Society have attended to the duty

assigned them, and I will say that we were received with that courtesy that all Rhode Islanders are in the habit of extending to strangers and visitors.

Dr. Shew introduced to the Association, Dr. Allen McLane Hamilton, of New York, who was invited to take a seat with the Association.

The President announced as the committee to prepare a memorial of Dr. Waddell, Drs. Steeves, Reid, of Nova Scotia, and May.

On motion, the Association adjourned.

The Association spent the afternoon in visiting the wards and beautiful grounds of the Butler Hospital for the Insane, under the conduct of Dr. Sawyer and the Trustees of the Hospital.

After partaking of a bountiful dinner, spread under a large tent on the beautiful grounds, the meeting was called to order by the Hon. Amos C. Barstow, President of the Board of Trustees.

Mr. President and gentlemen of the Association of Medical Superintendents of American Institutions for the Insane, we may congratulate ourselves, as well as you, that the tendency to union and association is no longer confined to the marts of trade and commerce. Science, learning and philanthropy now have their "Unions" and "Guilds." Freedom of thought and speech and the facilities for rapid and cheap communication bring men of kindred aims, tastes and employments, however widely separated, into correspondence, conference and association, for mutual help, improvement, and encouragement. No better illustration of this fact is wanted than is found in this gathering. Your Association numbering a little more than one hundred members, represents the hospitals for the insane in two nationalities which span this continent, and the present meeting brings together a majority of its members living in twenty-five of these States and Territories, and three from the Dominion of Canada. You are drawn to your self-denying work by that secret "silken tie" of sympathy for the suffering, which can be better illustrated by acts than described by words, and to these annual gatherings by a desire to qualify your-

selves for the largest usefulness in it. We honor your profession. We appreciate the value of your Association. We have invited you here because we desire for ourselves and for this community, a better acquaintance with such a company of intelligent gentlemen, whose lives are devoted to so noble ends. You walk in the paths made radiant by the steps of Howard, Clarkson, Wilberforce, Gallaudet, and others of equal or lesser fame, and we keep their memories green in our hearts by the respect and gratitude we show to you. The simple, but appropriate monument to the memory of Gallaudet, the founder of the first institution in America for the instruction of the deaf and dumb, bears in base relief, a representation of him in a sitting posture, with a child standing by his side, on whom his benevolent gaze is fixed, and to whom he is patiently giving the sign of the first letter of the alphabet, while above him is written the Hebrew word "Ephphatha"—Be opened. He could not, as could his Divine Master, open deaf ears with a word, but, by patient continuance in well-doing, he could open the closed mind to instruction, and thus in the highest sense cause "the deaf to hear and the tongue of the dumb to sing." A like devotion on your part has "opened" many a closed mind and restored the balance to many a disordered intellect.

It is made my very agreeable duty, in behalf of the Trustees of Butler Hospital for the Insane, to extend to you a most cordial welcome to our State and city, and to this home for that class of unfortunates who have become the special objects of your care. Pardon me if, in this welcome to the city and State, I anticipate that which you will receive from their respected Chief Magistrates. Standing where I do, how can I in my thoughts, separate this spot from the city and State, when in their earliest history they were so intimately blended. The State though it makes but a small figure on the map, cuts a larger one in history, for *here* the great principle of soul liberty—or as defined by Roger Williams, "perfect freedom in all matters of religious concernment"—had its first public recognition and illustration. When the exiled founder of our State, after being for fourteen weeks sorely tossed in a bitter season, not knowing what bed or bread did mean, pitched his tent here and found safe refuge, in token of his grateful sense of God's merciful providence to him, when persecuted for conscience sake, he called the place "Providence."

These buildings and this beautiful bluff cast their shadows with every setting sun, over the waters which Williams crossed when entering this place of refuge. Here the powerful tribe of the

Narragansetts, under their famous chief, Canonicus, then had their home, and their first salutation to Williams and his associates, "*Whatcheer Netop*," was given as his canoe touched this shore, almost within sight and hearing of the spot where we are now gathered. Its echoes yet linger among these hills and vales. Coming hither, not as Williams, to found a city or State, but rather to examine the civil structure which is rising from the foundations laid by him, especially as it widens out into organisms for the relief of the unfortunate, we feel moved to wake those echoes and make them to your listening ears, "*Whatcheer Netop*," "*Whatcheer Netop*," "Welcome friends," "Welcome friends." Welcome then to a city and a State, whose founder recognized the fatherhood of God and the brotherhood of man. Welcome to these grounds once pressed by his feet, and now consecrated by worthy descendants to an object of charity, at once a fitting memorial of his life, and monument to their memory. Welcome to a sight of the work we are doing and the modest buildings in which it is done. If any praise be due, bestow it upon these two men, your associates, the past and present superintendents of this Institution. We rejoice that the retired superintendent who lent the meridian RAYS of his splendid genius to irradiate our early steps, shines upon us still with full orb'd light from his more western sky. We are especially glad to have him with us to-day. The occasion would not be complete with either absent. Behold them both, our Gamaliel, a doctor of medical law, and our Paul who was brought up at his feet. Standing as they do, the connecting links between the Board of Trustees and your Association, this welcome will hardly seem complete unless endorsed and emphasized by them. So I gladly turn to them and ask them to join me in it.

REMARKS BY DR. RAY.

Dr. Isaac Ray, the first Superintendent of the Butler Hospital, was called up by this last remark. He said the compliment paid to him must be taken with many grains of allowance. To the credit of much of what has been done in this place, the Board of Directors are entitled, for they have always administered their trust with broad and liberal views, and with an eye for the best interests of the Institution. They have been men of enlightened views, and they manifested their faith by their works. When any improvements were suggested as necessary, they stepped forward with alacrity, and the improvements were made. (The speaker

here gave several instances in proof of this trait of the trustees). It is in this way that this Hospital has been kept in a state of constant progress, and has been able to meet the requirements of the times, and able to maintain an honorable position among similar institutions. The Doctor gave a vivid description of a visit to this spot thirty-four years ago, for the purpose of fixing upon a site for this building. The Doctor gave a rather amusing account of the opposition to the site, and to such an institution, saying there was an undercurrent of feeling that it was to be the means of undermining the foundation stone of Rhode Island's soul liberty. He also gave a sketch of the early history of the Hospital. The Institution began with a debt of \$50,000 on its buildings, but a gentleman stepped forward and wiped it out, declaring the Institution should have a fair start in the world. This gentleman also contributed a fund of \$10,000 or \$12,000 for the improvement of the grounds. The Board of Trustees have been most generously supported by others outside the Institution. As I have come here from time to time, and met the Trustees, it has seemed to me that they think I never did a better thing than when I nominated my successor.

Dr. Sawyer was called upon, but declined to speak.

REMARKS BY PRESIDENT WALKER.

Dr. Clement A. Walker, President of the Association, was next called upon. He said his heart burned within him as he listened to President Barstow, that he felt he must stammer out, on behalf of the Association which he represented, thanks for the beautiful reception, the whole-hearted hospitality and the hearty welcome they had received. A few of the older members of the Association have been acquainted with Butler Hospital and its surroundings for several years, but to the greater part of the Association this is a new thing entirely. He was glad such had come here to see the large-hearted liberality of the men of Providence; to see a hospital of a size so small that every inmate can be under the personal care of the Superintendent, without which he believed no hospital can do its perfect work. He was glad to know that Butler Hospital could grow no larger. In regard to the management of the Institution he had little to say, more than had already been said. Our members are gathered from all parts of America, including Canada. We have met here for the first time, many of us, but I hope not the last. I should be glad to come oftener, if

Rhode Island hospitality is what we have seen to-day. We shall go away from Rhode Island in the full belief that Providence Plantations is a good place to come to, and a good place to stay in.

REMARKS BY DR. CLARK, OF CANADA.

Dr. Daniel Clark, of Toronto, Canada, was next introduced. He expressed his thanks, and the thanks of his confrères from the north of the lakes, for the reception. When Rhode Island was named as the place of their meeting this year, he looked for it on the map, and for a long time could not find it. He found it at last, however, and would say he would be a believer in the Monroe doctrine if Rhode Island could be tacked on to the country north of the lakes. It gave him great pleasure to meet with the Association, and with the people here. Though different politically, the work of superintendents is world-wide, and the cause of humanity. The forty million people of this country, he thought, had a warm place in their hearts for the mother country, and he believed these two nations are the standard-bearers of a common civilization.

REMARKS BY GOVERNOR VAN ZANDT.

President Barstow then, in a particularly pleasant manner, and with a brief sketch of Roger Williams, introduced His Excellency, Governor Van Zandt. The Governor spoke in his usual happy manner, full of life and wit, and putting everybody in a good humor. He was charmed at being present, and at what he had seen and heard. He spoke of the indebtedness of the State to this Institution, an institution of which not only the State, but the country may well be proud, and of the great benefit of social occasions like this for the advancement of great objects.

REMARKS BY CHIEF JUSTICE DUFFEE.

Mr. President and Ladies and Gentlemen, at this hour of the afternoon, after having heard the eloquent remarks of the distinguished gentlemen who have preceded me, it were better, perhaps, to say little, if anything. But I venture the experiment of going beyond a sentence or two, because I wish to express my sense of the obligations which jurisprudence owes to the medical profession, and especially to that branch or specialty represented by the distinguished gentlemen who are with us here to-day. In the investigations before us we have frequent occasion for the services of

medical experts, and I am glad to say, so far as I have observed their services, they have always been rendered with cheerful alacrity, although I doubt not they are sometimes rendered at considerable inconvenience and self-sacrifice. In fact I know of no class of men who are more public-spirited, more allied to social duty, and more free of selfish egotism and of crotchety conceit than our medical brethren. Then there is that connected with the specialty, whether it belongs to the medical profession, or is acquired by concerting with the world, which makes its members exceptionally good witnesses. There are few things, I think, more interesting than the testimony of an accomplished physician upon some important question of physical or mental pathology, if he takes the stand simply to serve the cause of truth, and is enough a man of the world to know and to express himself in the language of the laity; but, on the other hand, they appear most ridiculous when they are extremely technical. There are few things more ludicrous, (if not too lamentable to be ludicrous), than an encounter between lawyers who cram for the occasion, and ignorant doctors who try to palm off the pedantry of the profession for real knowledge. Let me say, to the credit of both professions, that such exhibitions are rare, and probably do little harm if they do no good, whereas the benefits that accrue from testimony of the other kind are often of inestimable value.

The most important questions, undoubtedly, for medical testimony, are questions of sanity. Ordinarily insanity is so potent that anybody can detect it, but there are cases where the disease is so obscure, so subtle, so intermittent with morbid and eccentric conditions, that it baffles ordinary observation. Such cases are pre-eminently cases for the medical expert, and in such cases, without the aid of the expert, a court of law can do little but guess and grope and blunder in the dark.

Again there are cases where the insanity is manifest, but where the question is whether it has so far disordered the mind as to convict it of guilt, or to absolve it from responsibility. These are always cases of extreme delicacy, and whether they occur in civil or criminal proceedings, they can not be safely solved without the aid of expert testimony. Now, in regard to both classes of cases, I feel safe in saying that the medical profession have done a great deal to enlighten juries and enable them to decide justly and without doubt.

Mr. President, it is not simply as witnesses that these learned men have made us better. There is one branch of the law which

they as well as we have cultivated. Some of our best treatises on medical jurisprudence are their work. One of them of high value and reputation was written by the former superintendent of this Hospital, (Dr. Isaac Ray). Some of the views advocated in them have not been fully approved by the courts, but their labors in this direction, as well as such labors by the profession at large, have undoubtedly been largely initial for good, and in consequence of this, without question, our laws to-day both in practice and theory are wiser, juster, plainer, and more humane with the spirit of enlightenment and Christian civilization, than they otherwise could possibly have been.

REMARKS BY PROFESSOR CHACE.

Prof. George I. Chace, President of the Board of State Charities and Corrections was then introduced. He drew a contrast between the treatment of the insane years ago and now, and the great improvement that has been made. He alluded to the insane at the State Farm, as well as the other inmates at that Institution, which the Association will see to-morrow, as well as those at the Butler Hospital. He dwelt particularly upon the work of charity, and urged all not to lose their courage and hope, but to labor on wherever they can, each in his own way, in alleviating the sufferings and mitigating sorrows of the unfortunate classes of society.

REMARKS BY ALDERMAN TOBEY.

In the absence of His Honor, the Mayor, Alderman Tobey was called upon to speak in behalf of the city. He regretted that the mayor was not there to extend a welcome to the Association, because if there ever was an association that calls for the warmest welcome, it is an association like this, which is banded together for so noble and so glorious a purpose as this. He made some amusing allusions to expert testimony in cases where sanity is in question in the courts, and also spoke of the improvement in the care of the insane. In conclusion he extended the most earnest, hearty and cordial welcome to the Association, and expressed the hope that they would come again and bring their families, and "your sisters and your cousins and your aunts," when they will again be most heartily welcomed.

ADDRESS BY PRESIDENT ROBINSON.

Rev. Dr. Robinson, President of Brown University, was then introduced. He spoke of the relations existing between education

and works of charity. Charity is the result of Christianity. Charity, to be of use to its subject or object, requires to be intelligent. Education is therefore closely connected with the work of public charity, and there is a close connection between education and the specific work which this Association contemplates. He is disposed to think there are more cases of mental disturbance in the uneducated than in the educated. He could not help feeling that there is a feeling of obligation on the part of educated and Christian people towards those classes of men who devote their lives to this work. He asked of a member of the medical profession some years ago, "What proportion of society is insane?" and received the reply, I am inclined to think they would be in the minority.

REMARKS BY PROFESSOR DIMAN.

Professor Diman, of Brown University, one of the Trustees of the Rhode Island Hospital, was introduced and spoke pleasantly, repeating the invitation to the Association to visit the Hospital he represents. The Rhode Island Hospital and this Hospital came from the same springs of benevolence and are watered by the same fountains. In behalf of his associates, he expressed gratitude at having the opportunity of meeting these learned gentlemen. In inviting these gentlemen to visit Providence, the Trustees of Butler Hospital have conferred a benefit to the city, and in this reception have conferred an honor upon the whole community.

JUNE 11, 1879.

The Association was called to order at 8 P. M., by the Vice President.

Dr. CALLENDER. The order of business at the time of adjournment, at noon, was the discussion of the paper of Dr Draper. That order will now be resumed. Any gentleman who desires to submit remarks upon this interesting paper on the responsibility of the insane while confined in hospitals, will now be heard.

Dr. REID, (Nova Scotia). Mr. President, it is with some diffidence that I arise before the Association this evening, because I feel that I am only a junior student, and scarcely able to give any information. I listened to the paper of Dr. Draper and to the remarks of Drs. Ray and Nichols, and I must say that I fail to find

any difference of opinion between them. It may be that I am wrong, but if I take up the meaning of Dr. Draper's paper correctly, I think he wishes to bring forward more clearly than he thinks it is understood, the responsibility of the insane, but had no intention of presuming that the law should consider them responsible. I think it is a different subject altogether from that. Again, from the little experience that I have had, it appears to me that an asylum is to some extent a copy of the outside world, a little perverted, and that is all. In asylums, we have responsible parties, I think, and some of them are as competent in that respect as any person. We have these from the perfect dement, who has no reason whatever, to the inmate who has so fully recovered as to be almost ready to be discharged, so that we have every grade of responsibility, from nil up to what we might expect from a sane person, just as outside of asylums we have those that the law would not consider responsible, as the early age of youth up to the complete development when the law would consider the person perfectly responsible. I do not wish to take up the time of the meeting, I only state what I understood to be the meaning of the paper, and I think it well that the paper was read, to look at the subject in a light different from what we have been accustomed to regard it. They are in so far responsible, that we try to educate the irresponsibility, so as to bring under proper restraint their errant will.

The VICE PRESIDENT. If the discussion is closed, the paper of Dr. Draper will take the usual course.

Dr. Harlow introduced to the Association, Dr. Caswell, President of the Rhode Island State Medical Society, and Dr. W. E. Anthony, President of the Providence Medical Association, who were invited to take seats with the Association. Dr. Curwen read the notes of a case of serious injury to the brain from a pistol shot made in an attempt at self-destruction, with the detail of the post mortem appearances.

The VICE PRESIDENT. The paper is open for remarks.

Dr. KIBKBRIDE. I would like to know from Dr. Curwen, whether this weakness of mind antedated this injury of the brain, or occurred afterwards.

Dr. CURWEN. That, I can not certainly say, as the history of the case was extremely meagre, and we could learn very little of

his previous manner of life, though some of his friends stated that great distress of mind existed previous to the effort at self-destruction.

Dr. KIRKBRIDE. This was a most serious injury to the brain, although we have had cases reported to the Association of equally serious injury to the brain, without any mental disturbance apparent. I was anxious to know whether this weakness was attendant upon the injury, or whether it had existed before the man attempted to take his own life. I have seen some cases in surgical practice where it was possible to pass a probe into the substance of the brain to the depth of four or five inches without apparently any mental disturbance existing, and yet the patient would die suddenly as Dr. Curwen has reported, and on a subsequent examination, there were large abscesses holding a small teacup full of broken down brain substance. All these cases are very interesting as showing the functions of particular portions of the brain.

Dr. RAY. The case seems to belong to a class of cases not very small, where after considerable loss of cerebral substance, no impairment of the mental powers seems to have taken place; in conversation, no difference is perceived because it is not very extensive, or a close examination is not made. And you know it almost leads to the belief that the brain is of no account whatever in the operations of the mind. You may fire a ball through it, and still the man transacts business as before. One of my patients endeavored to commit suicide by throwing himself under a cart-wheel, and met with considerable loss of cerebral substance; but after a while he was about again and seemed to be very much improved, but as the wound healed up and he was able to go about, he manifested the same mental characteristics that he had before, mental disturbances and suicidal attempts. The man finally, after he was recovered, did commit suicide.

Dr. BANCROFT. The remarks just made bring to mind a case that came under my observation many years ago, that of the injury of a lumber man by the falling of a large tree, a dead knot striking on the left side of the head, on the lower part of the temporal bone, producing a comminuted fracture of that bone three inches in diameter, the knot penetrating some two inches into the brain, making a bad lacerated wound. As he was in a distant lumber country, it was some twelve hours before medical aid was procured, and then he was in a state of perfect coma. The scalp was laid bare, a crucial incision made, and about three inches of the skull removed. The wound of the brain was two inches or more

deep, downward and inward. It was cleansed of any bits of wood that were forced into it. After these particles were taken out and the injured portion cleaned thoroughly, the lips of the wound were brought together so as to leave an opening in the centre. In an unconscious condition he was carried on men's shoulders some eight miles to his home. By the time they had reached his home consciousness began to return. During several succeeding days his consciousness by slow degrees returned. After this was fully restored, his only mental disturbance was his inability to produce the right word to express his ideas. This puzzled him for a week or two, but finally passed away. To be brief, the wound healed favorably, and after some two months, everything progressing well, the man's health being perfectly good apparently, and the discharge from the wound in the brain ceasing, the flaps of the skull were allowed to close. I saw the man three months after this took place as he was on his way to his permanent home, and I could see nothing to show that his mental and bodily health was not perfectly good. He had perfect control of his muscles and speech, and was robust and hearty. I had a dispatch from his home some three or four weeks after he reached there, that he had suddenly become unconscious and died. A post-mortem examination was made the next day, and it was found that down to the depth of two inches, at the bottom of this lacerated wound, there was an accumulation of pus. These are the principal facts. I merely refer to the case now as showing what has been suggested by the remarks already made; how serious a lesion may exist without any disturbance of the mind, in the first place, and then to show the fact that the only disturbance in the mental functions was the inability to choose the right word. And while on the subject I will just make reference to a case, which I have recently seen, that bears on the subject which this report has started, but I can only just glance at the case. The facts are recorded and may be reported. The case was that of a man who died a few weeks ago, who had passed through conditions something like this; four years ago he had a slight paralysis of the muscles of speech, and a slight affection of the muscles of the right hand, which was very soon recovered from, and the man passed a year in his usual health, and then after unusual exertion he became insane. I have not a very specific account of the symptoms for the first two or three weeks, but he was after that time brought to our care, and the leading symptoms were what you would call ordinary sub-acute mania, particularly excitement of the moral feelings, so

much so that his family and friends could not treat him at home, and that was the immediate cause of his being brought to the asylum. There was in his mental aberration, considered in itself, nothing uncommon, there being an alteration of the moral feelings, obstinacy, and a disposition to take a different course from what was desired of him. The peculiar symptoms in the case were, a disturbance in the power of language, not in the formation or use of words, but in his power to communicate with other persons. His particular symptom was inability to appreciate, through the sense of hearing, any words spoken to him. He was with us nearly two years, and during all this time there was but one or two instances in which it seemed that he really heard what was said to him and appreciated it, but it was never clearly proved. It appears that the sense of hearing was perfect. Any sound occurring in the immediate neighborhood he would evidently hear, but any word addressed to him was never responded to, and there is no evidence that he ever understood it. Information addressed to the eye seemed to be understood, such as an address or gesture indicating "good morning." This seemed not only to be perfectly understood, but responded to by him. Another symptom in his case was a loss of the power of choosing the word he wished to use, but it was shown more in the coining of some word out of the vocabulary than by taking a wrong word. He had a large vocabulary of these words, and he would coin those which no person ever heard, to express his ideas. He was a farmer and would undertake to state how to set out trees, for example, and would give right words enough to give you the correct idea of what he desired to say, but a few of these words, and sometimes many, would be such as have no existence, in fact. His speech, for months together, was made up in this way, and this was a leading feature in his case. It was diagnosed a case of aphasia, but still it did not correspond strictly with ordinary descriptions of that disease. No report came with him of any other affection. On examination, however, after a residence with us of sometime, it was found that he had organic disease of the heart, and the subject being followed by inquiry among his friends, there was evidence that he had had heart disease for half a dozen years. It became a prominent symptom, and was the immediate cause of his death. A post mortem examination was made, and it was found that he had a very great enlargement of the heart and especially of the right ventricle. The valves were ossified, and in the brain the middle cerebral artery was plugged for an inch and a half in

length, completely solid, and there were lesions at several points in the vicinity, which perhaps our friend Dr. Denny can describe better than I can. I will save time by stating that where Ferrier locates the function of speech there was atrophy, produced by the plugging of the artery, and there was so much loss in weight that the brain weighed some three or four ounces, I speak from memory, not having thought of refreshing myself upon the subject, less than its nominal weight, and on both sides in the region devoted, according to the doctrine of Ferrier, to the formation of language, it was organically diseased. I mention this case as illustrative of ideas which have been suggested here. The case will be reported or I would go into it with more detail.

Dr. RAY. This case reported by Dr. Curwen, and the ones described in the discussion, are interesting because immediately connected with the functions of the brain, and the more we have of them the more the mystery grows why such extensive injuries should be attended with so little mental disturbance. I just thought of a case which came within my own knowledge illustrative of that same fact. Two or three years ago a man was tried in my neighborhood for shooting a newspaper editor through the brain, who seemed after it to suffer no special mental damage from the wound, and it was thought, for a while, he was going to get well. He got in the hands of the homeopaths, and they glorified exceedingly in curing a man that others had given up. The case was noticed in their journals as a great triumph. But he didn't get well. He died. It appeared that the ball entered the back of the brain, glided on over the tentorium, and there lodged. The defense was that he died, not from the wound, but from bad surgery, or imprudence of some sort, that the ball there ought not to have produced death, and that the deceased ought to have lived to a good old age. On the trial various persons were brought who had similar injuries. I recollect one of them had got a bullet wound in his head at one of the battles of the Wilderness, which knocked him over and he was put into the hospital, but after a week or ten days he seemed to be in as good condition as ever, at any rate he went about his business seemingly as before. I think he got his brain tested thoroughly while he was there on the stand, something like twelve years afterwards. He had been about his business, I don't know what it was, but nobody had observed any impairment of his mind. He certainly testified very well on the trial. He swore that the bullet was in his head all the time; that it had never been taken out.

Dr. CALLENDER. In this connection it occurs to me that Dr. Burrell called my attention to something touching this subject to-day. Members will remember at the Washington meeting that, during the discussion of a paper presented by Dr. Eastman, I briefly detailed an interesting case in my house at that time, which only a few days before had been subjected to trephining, on account of an injury to the cranium of a gentleman, twenty-eight years of age, when he was in his fourteenth year. The injury was caused by the kick of a mule, which fractured the right parietal bone. The symptoms developed after puberty were unreliability of statements, and before he was in the Hospital, in 1878, with kleptomania sometimes. The case was very remarkable, as developing such peculiar characteristics for one in his social position. In my remarks, at the time, I promised to report the result of the operation of trephining, which was insisted upon by his father, who was a leading physician of the vicinity. I have to say, and it is interesting in this connection, that I believe that upon the day I was detailing the case to the Association, the patient died, the operation having been performed, I think, three days, or perhaps four, before. From the reports made to me, by my assistant and the attendant surgeon, the immediate cause of the death was an inundation, so to speak, of the brain, from the contents of a large sac, containing very thin, almost sanious pus. There was no post mortem examination performed. There must have been a pint and a half or more of this pus. The patient, in about nine hours after the operation, fell into coma, and died within eight or twelve hours.

Dr. KIRKBRIDE. Had there been any coma before?

Dr. CALLENDER. There had not been. The surgical interference during the operation of trephining seemed to have opened the sac in the dura mater. What connection the injury to the brain had with the development of kleptomania or moral disturbance, I do not know, but such was the case.

Dr. CALLENDER, (in the chair). If there are no further remarks Dr. Curwen has another brief paper, an abstract of Dr. Echeverria's paper on Nocturnal Epilepsy, which he will present to the Association.

Dr. CURWEN. Before reading this abstract which was hastily prepared for another purpose, I wish to state that more than a year ago, at a meeting of the Medical Society of the State of Pennsylvania, a resolution was offered by one of the most prominent members, requesting the county medical societies to report

to me, any cases of insanity, following epilepsy, within their knowledge, in order, if possible, to obtain the proportion of epileptics who become insane. In the course of reading and looking up matters in that direction, I met in the March number of the *Annales Medico-Psychologiques*, Dr. Echeverria's article on Nocturnal Epilepsy. Many of the members have probably read it. I prepared the paper to read at the meeting of the Medical Society, to call their attention to this form of epilepsy. I wish at this time to ask members to furnish me with any facts they may have, which will enable me to prepare as full and careful a statement of the number of epileptics who may become insane, as can be obtained.

Dr. Curwen then read the paper.

The PRESIDENT. The subject of nocturnal epilepsy is an interesting and important one, and calculated to promote discussion. Will any gentleman remark upon the subject presented in the paper?

Dr. RAY. I trust that so important a matter as nocturnal epilepsy will not be passed by without something being said, because it is one type least understood of this very dangerous disease. This subject of epilepsy ought to be more understood by general practitioners than it is, because it comes before them generally before the cases are sent to the hospitals. I take it that any man who has charge of a hospital, will say that in the beginning of the disease, the early symptoms have been very much overlooked. It begins in such an insidious, obscure manner, that this ought all the more to put the practitioner on his guard, and lead him to pay more attention to its early stage. Long before its existence is discovered it may be going on, and the first intimation of danger is some outbreak or fit. If the patient is a child, the first intimation of trouble may be some disturbance in his sleep, perhaps some convulsive working of the tongue or other seemingly slight movement in the face, which the parents attributed in part to something else, and place no stress upon it. I think that if the subject of nocturnal epilepsy was better understood, these cases might be taken under care at an earlier period, and although I have little faith in the cure of epilepsy, yet I think where the disease is taken in hand at a very early stage, before it appears in convulsive paroxysms, that the chance of cure is not so bad as it has been represented. Many of these cases may arise from indigestion, irregularity in diet or exercise, and by noting these things, and watching and caring for the incoming and outgoing of the patient, you may

effect a cure. I think I have seen such cases, and therefore I speak of the great importance of making known the fact that epilepsy may come on in this insidious way, especially in the night, when it is least likely to be observed.

Dr. Stearns introduced to the Association, Dr. Gordon W. Russell, of Hartford, Conn., for many years one of the Trustees of the Retreat, and now one of the committee to devise measures for the care of the indigent insane of the State.

Dr. RUSSELL. Perhaps I have no right to speak at this time, but you can not understand without I do this, how much I appreciate, and how much I am overwhelmed by this introduction. I expected to steal in here quietly, and glean from the knowledge of others. I am pleased to meet you, gentlemen, and learn from all, or any of you, anything pertaining to the specialty, which, although I have not practiced specially, I always have felt a deep interest in.

The PRESIDENT, *pro tem.* The Association reciprocates the sentiments of the Doctor.

On motion, the Association adjourned.

JUNE 12, 1879.

The Association spent the morning in visiting the State Farm, under the charge of the Board of Charities and Correction, and examined the different buildings for the care and custody of the several classes under their control, and at 6 p. m. examined the excellent arrangements of the Rhode Island Hospital.

The Association was called to order at 8 p. m., by the Vice President.

Dr. Strong introduced to the Association Dr. J. F. Noyes, of Detroit, Michigan.

Dr. NOYES. Mr. President, I do not know whether you have recognized me as having spent much of the day with you, and participated with you in the hospitalities you have received at the State Farm, visiting the institutions there. I can only say I al-

ways feel at home among medical men, and feel that I can learn something when I meet with them, whether it be in this specialty or not, whether they be engaged in studying out the mysterious disorders of mind, the outgrowth of disease of the brain, or whether as ophthalmologists or gynæcologists, and I never think of the latter without bringing to mind what a "down east" doctor said of gynæcologists when he said that the uterus was the most abused organ that the doctors had anything to do with, that they had attacked it with every appliance and every machine but a threshing machine. But however that may be, as I said before, I feel I have learned something when in association with medical men. In the walks of life, medical men must bear a high part. The medical profession, as a whole, must ever constitute a sort of high court, before which all questions must come affecting the physical and moral health of the people, for it is only in a sound body that you can expect to find a sound mind. I thank you, Mr. President and gentlemen, for the courtesy you have extended.

Dr. Callender also introduced to the Association, Dr. Walter Channing, of Boston, Mass.

The Committee on time and place of next meeting, reported in favor of Philadelphia as the place, and the time, either the third or fourth Tuesday of May, 1880, as may be found least to interfere with the meeting of the Medical Society of the State of Pennsylvania, which was unanimously adopted.

Dr. KIRKBRIDE. I would only say that the Association may depend on having a most cordial welcome in Philadelphia. As it was the first place of meeting, I have always thought that it was, as a general rule, the proper place to go to, and have left a standing invitation with the Secretary, if I was not present, to have the Association meet there. I am delighted that the Association has concluded to hold its next session in Philadelphia.

The PRESIDENT, *pro tem.* I will say for the Association, that I have no doubt they will meet with a cordial welcome.

Dr. Callender, having called Dr. Nichols to the chair, presented the report of the Committee to prepare a memorial of the late Dr. William M. Compton, which was, on motion, directed to be entered on the

minutes of the Association, and a copy transmitted to the family of the deceased.

The Committee appointed to prepare a memorial minute of the death of the late Dr. W. M. Compton of Mississippi, a member of this body, beg leave to present the following :

William McCorkle Compton was born near Madisonville, Hopkins County, Kentucky, August 4, 1833. He was of Irish ancestry, but his parentage was American. In early boyhood, his family removed to the northern portion of Alabama, where he resided until he attained to manhood. He was equipped with a liberal education, and commenced the collegiate study of medicine in the Medical Department of the University of Louisville, in 1852, and received the degree of the Doctorate, from the Jefferson Medical College of Philadelphia, in March, 1854. Soon thereafter, he entered upon the practice of his profession in Marshall County, Mississippi, and that was his home proper until his death. There, amid one of the most refined and intelligent communities in that State, he early acquired an enviable popularity, not only as a physician of skill and learning, but as a leading and public spirited citizen. In 1861, he was chosen to represent that county in the Legislature of that State, in which at a period of great excitement, his course was conservative and was maintained with candor and ability.

Following the fortunes of his State in the civil war, he entered the military service as a private, but was soon transferred to the surgical staff in which he remained during the contest. The greater portion of his duty in that capacity was in the field, though for sometime he served at various posts. The annals of the Surgeon General's Office at Washington, preserve the record and photographic cut of a successful amputation at the hip joint, performed by him in a field hospital. After the close of the war in 1865, he was made a delegate to the constitutional convention of Mississippi, and was also a member of a similar body convened in 1868, which formed the present constitution of Mississippi. In both of these assemblies he bore a conspicuous part. His ability and aptitude for public affairs were generally recognized, and his advanced views, under the order of things, separated him from the mass of those with whom he had formerly held political association. In the autumn of 1870, he was appointed Superintendent of the State Insane Asylum at Jackson. For some years under the disordered condition of affairs which had prevailed throughout the State, this

Institution had been languishing. He entered with characteristic zeal upon the work of revival, and impressed it with the vigor of his own spirit, and in the eight years of his superintendency he succeeded in developing it into one of the best of its class in the southwest. He added largely to the building and equipments, and elevated its character in every respect. The work was congenial, and he identified himself with the interest of the insane and established a reputation which will long survive amidst those who appreciated his labors. During his incumbency of this office, he was chiefly instrumental in founding the Mississippi State Board of Health, of which he was a member. He was a frequent contributor to the medical journals of his section, and several papers from his hand evince thorough research and ability. In 1871, he was made President of the State Medical Society; he was a permanent member of the American Medical Association, and at the time of his death was Chairman of the section of Psychological Medicine. In the spring of 1878, at the expiration of his second official term as Superintendent of the State Insane Asylum, he was retired. His interest in the specialty, however, did not cease, and it became his intention to devote his life to it. With this view, he projected the erection of a private institution for the care of the insane, and after much consideration of a proper site, selected the town of Holly Springs, in the extreme northwestern portion of the State, which had long been his cherished home. Among the influences which determined this selection, was the elevation of that spot, and its repute for salubrity and freedom from liability to the types of disease incident to that region. He had made considerable progress towards the completion of a handsome and commodious structure. He proposed to open it for the reception of patients on the first of the present year, but alas, the proposals of man are often thwarted by the dispensation of Providence. The perch of the little city which he had chosen for his new home for the insane, offered no security against the fatal breath of the pestilence which swept sirocco-like through the lower Mississippi valley, making the autumn of 1878 a terrible memory in that stricken region. The edifice stands unfinished, and its noble hearted builder in the prime of manly strength was smitten, and his remains repose within sight of it.

More than three hundred of his townspeople succumbed before the scourge, and in its last days, after many weeks of weary toil, this faithful doctor, like a soldier with armor on, died at the post of duty, after a brief illness of the prevalent epidemic. His mortal career closed October 23d, in the forty-sixth year of his age.

The memory of Dr. Compton will long be green in Mississippi and beyond its borders where he was known. He was of a genial, open, loving nature. The enmities he incurred did not last, and the friendships he contracted were enduring. In public life, in his professional course, and in his private walks, he was distinguished for candor, tempered with affability. His capacity in whatever sphere it was exerted, was of a high order. His intellect, naturally bright, was variously enriched by culture. In the pursuit of politics, he was recognized as a leader both by associates and opponents. In the noble paths of professional science which he most affected, he was qualified to rank with the first. He had energy also, which, had he lived, would have secured him the just and solid fame his friends expected him to achieve. He was sociable, affectionate, and generous to a fault, his hand and his heart were open as day to melting charity. In the household of the insane which he long successfully administered, his cheerful voice and hearty smile were as a well spring of pleasure, and no truer tribute to his memory was paid than the sorrow which overcast it when its inmates learned of his death. In the fierce carnival of the King of Terrors in which he went down, many fell who were conspicuous in their respective communities, and whose death worked deep regret, but none was more sincerely mourned than our late associate, whose memory this brief sketch intends to honor on the records of a body with which it was his greatest pride to be identified, and by which, in life, he was held in high regard.

Resolved, That the Secretary be requested to present a copy of these minutes to the sorrowing family of the deceased.

JOHN H. CALLENDER, Tennessee,

T. J. MITCHELL, Mississippi,

R. C. CHENAULT, Kentucky.

Dr. Kirkbride read the notes of three interesting cases, copied from the Case-Book of the Pennsylvania Hospital for the Insane, by Dr. Robert J. Hess, one of the assistant physicians of that Institution, and by whom the post mortem and microscopical examinations were made. The patients were all females. The first was diagnosed as a case of general paralysis of the insane, and the details of symptoms during life, appearances on dissection, and subsequently the results of microscopical examinations, were given in detail. The following points were noted as prominent aids in the diagnosis of this case:

1. The character of the voice was altered and the mode of speech changed.

2. The tongue was moved with uncertainty and with want of energy. Words were enunciated stammeringly as if she were slightly intoxicated.

3. There was a most striking special affection for her little girl, of whom she spoke very frequently, and remarks from others regarding whom, especially if disparaging or even a want of knowledge of her, often led to high excitement.

4. Unconsciousness of disease. She had no concern regarding her condition, was always perfectly happy, never had pain or ache, all her surroundings were just what she wished, and it was not possible to add to her happy condition.

5. Occasional maniacal excitement in the progress of the disease, preceded on first admission by anger and scolding, without any obvious cause.

6. Difficulty of motion. This was very striking from the first admission of the case and steadily increased to its termination.

7. Attacks simulating epilepsy, but no marked epileptic spasms. These were the more prominent of the symptoms that seemed to indicate the character of this case.

The next case read was one of acute mania, in the progress of which, on the eighth day, all the symptoms of apoplexy occurred, and on a post mortem examination, there was found a large clot, the size of a hen's egg, nearly filling the entire middle lobe of the left side.

The third case was one of chronic mania, in which there was, during a single night, a complete change in the character of the symptoms. From great vivacity and activity, the patient became apparently demented. Instead of being exceedingly restless she was now disposed to stand in one place; while formerly she was loud in her conversation, she now uttered what little she said scarcely above a whisper, and her face showed all the indications of intense anxiety. Failing gradually, she died on the eighth day from the occurrence of these new symptoms. The autopsy revealed bilateral thrombosis of the middle cerebral arteries, death having occurred before the softening was complete. There was no hæmorrhagic clot.

DR. CALLENDER, Vice President. The Association has been enlightened by the details of these interesting cases as given by Dr. Kirkbride. The first case is specially interesting. The subjects are open for discussion. Shall we hear any remarks upon them?

DR. RAY. In regard to the first case read by the Doctor, I must say that I fail to see in it a case of general paralysis. If I heard

aright, I perceived scarcely a single symptom which I should consider characteristic of that affection. The kind of paralysis manifested by that patient appeared to me nothing more than that of ordinary paralysis, and as I understand the matter, ordinary paralysis differs from general paralysis, in this particular, that while the muscular impairment is visible in the first, continuously, without much abatement, in general paralysis it is in the early stages visible only occasionally. The patient can walk perfectly well, without hesitation or impairment in his step, and yet, without warning, will drop down all at once. That kind of impairment of motion, which it seems to me, is characteristic of general paralysis, was not apparent in this case. And other characteristic symptoms were also wanting. There was nothing of the exalted views in regard to power and wealth and consequence, which we usually see in general paralysis, or certainly in a very large portion of cases. There are some cases, no doubt, in which it is oftentimes difficult to distinguish between general paralysis and something that looks very much like it, and which we, for want of a better term, call affiliated cases. They lack more or less, some of those characteristic features, like the notions about wealth, or power and great consequence. I do not mean that all these notions are witnessed in every case of general paralysis, nor that the movements of the tongue are visible always in the early stages.

Dr. DANIEL CLARK. At first consideration, it might be said that there was nothing very striking in the first case recorded, of general paralysis, except what was revealed in the post mortem. This disease seems to be on the increase, if the records of asylums are to be relied on. In the Toronto Asylum, with 670 odd patients, there were last year thirteen deaths from paresis. It is not now difficult to distinguish this disease by a post mortem. The thickening of the membranes, the gelatinous or milky fluid in the ventricles, and under the pia mater, the bead-like pellucid formation often formed in the course of the choroid plexus, the fibroid adhesions of the membranes, the cell alteration accompanied by the clinical history of Dr. Kirkbride's case, especially the general contentment, make the probability that of paresis, even with the absence of pronounced symptoms, although as Dr. Ray has well said there are a great many common symptoms, both in common paralysis, so-called, and general paralysis. In most cases these can be eliminated by thorough study of each case, and the distinctive symptoms show the genus of the disease. The geographical distribution of the disease is one of its remarkable features.

Dr. WALTER CHANNING. In the Danvers Hospital, we had a case similar to that described by Dr. Kirkbride, in which it was for some time difficult to decide whether the symptoms pointed to paresis or not. When the patient first entered the Hospital she was rather wandering and incoherent in her language, her voice was tremulous and her articulation so imperfect that it gave the impression of stut-tering. After a short time she began to talk about property which she owned in the south, and had inherited from an ancestor, and dresses and fine clothes she had left in Boston. Combined with these delusions, was a certain degree of depression, and I was at first led to regard the case as one of melancholia of a sub-acute character. When she had been in the Hospital about two months she became violent, her speech became more hesitating, and her delusion of possession of great property, more noticeable. She believed that she owned many diamonds, even thinking that the buttons on her dress were diamonds. Growing rapidly worse, she became incoherent, and died of exhaustion from three to four months, according to the best of my recollection, after her entrance into the Hospital. The post mortem appearances were in many respects similar to those which Dr. Kirkbride has mentioned. The pia and dura mater were particularly involved. The stage of hyperæmia was earlier than in Dr. Kirkbride's case.

Dr. DENNY. The second case related by Dr. Kirkbride, viewed in relation to that reported last evening by Dr. Curwen, derives an additional interest from its bearing upon the moot question of cerebral localization.

In the one case, a pathological lesion of comparatively slight gravity, apparently involved that part of the cortex cerebri, which comprises the gyrus centralis, anterior and posterior, forming the so-called motor zone, and was signalized by profound paralysis of the opposite side.

In the other case, the line of a bullet wound passed through the second and third frontal convolutions, nearly involving with subsequent suppuration, much of the temporal lobe, without producing any motor or sensory disturbance, although the destruction of substance would seem to have been much more serious than in the previous case. This suggests the celebrated case alluded to last evening, of Dr. Bigelow, in which a large bar of iron entered the right side of the skull, through the lesser wing of the sphenoid, and a part of the greater emerged at the vertex anterior to the coronal suture, involving thereby the three frontal convolutions,

but escaping the two central gyri and produced no paralysis of sensation or motion. The question arises as to what conclusion we should attain to from such cases.

I think we can only affirm, as yet, with respect to the doctrine of cerebral localization in man, so far as cortical centers are concerned, that that part of the grey substance which, when injured or excited, is followed by disturbance of the motor function on the side opposite to the lesion, comprises the gyrus centralis anterior, and posterior with the third frontal convolution of the left side and its near vicinity in disturbances of speech. (*Seelig nuller, Deutsche Med. Wochenscder*, 1877, 46, 48.)

In neither of these cases were these regions implicated, nor could any of the central ganglia of sensation or motion have been involved. The cases, therefore, so far as they go, tend to corroborate the doctrine of cerebral localization, maintained by Hitzig, Fritsch, Charcot, Duret, Carville, Ferrier, and others, although we have not yet reached conclusions definite enough to establish clearly that there are any cortical centers, except in so far as irritation or alteration of certain points of the grey substance externally, which, to some extent, may vary or be substituted one for another, involves definite tracts of white fibrous substance underneath whose bundles are conductors of motor or sensory impulses.

As no class of observers have wider opportunities to inquire into the connections between symptoms of mental and physical disturbances and post mortem lesions, than members of the Association, and as in the direction of exact observation, advance only can be made, it is greatly to be hoped that the number of similar cases reported will be rapidly accumulated, with full expressions of opinions pro and con.

Dr. STRONG. I have but little to say in regard to this very interesting case presented by Dr. Kirkbride, I thought I saw in the case, while listening to the Doctor, some clearly marked symptoms of general paralysis during life, and certainly the post mortem results very clearly point to those pathological conditions which are usually observed after death in cases of general paralysis. If I remember clearly, (Dr. Kirkbride will correct me if I am wrong), this patient had delusions which partook of the character of exaltation. For instance, she was more than satisfied with all that was done for her, her food was excellent, everything was lovely, and all her surroundings she looked upon as charming. Her exaltation did not reach the pitch that is observed in some instances,

but nevertheless she had it in a degree that clearly, in my view, establishes it as a characteristic mental symptom of general paralysis. In addition to this exaltation, look at other symptoms. She had the defective articulation and the muscular inco-ordination, characteristic of general paralysis. When you come to the post mortem examination you certainly find the lesions usually observed in general paralysis. The appearance of the dura mater, and more particularly the thickening of the pia mater and its adhesion to the convolutions, are conditions which you will find in a large proportion of paretic cases. For these reasons and others which might be mentioned, I can but regard it at least as a tolerably clear case of general paralysis.

Dr. RAY. One thing occurs to me, suggested by a remark which has been made, as to the pathological appearances after general paralysis. According to my observation there is hardly any organic lesions that the brain can be subjected to, which may not be found after death, and it is also equally true, so far as my own observation goes, that there are cases now and then where you find on post mortem examination, very little organic lesion, certainly none adequate to the production of all the mischief. I refer to such lesions as are within the range of the eyes and the scalpel, but not the microscope, and therefore, my inference is that in order to ascertain the real pathological difficulty in general paralysis, we must resort to the microscope, and thus only can it be found. The knife only discloses what the disease has produced as merely its sequel.

Dr. NICHOLS. If I recollect rightly, Dr. Kirkbride didn't, in the first case, diagnose effusion on the brain of any kind, but the case was called one of mania, and he said that cold was applied to the head and heat to the feet, and perhaps sinapisms were used, but nothing of medication. It would be instructive, I think, to the Association, if the Doctor would indicate briefly, what medication he pursued in this case, when he regarded it as a case of mania simply, or generally, what he considers the therapeutical indications in ordinary cases of acute mania.

Dr. KIRKBRIDE. I should have no objection to going into a discussion of that subject, although I do not see any connection between it and this case which I have reported. I take it for granted that the Doctor does not think the treatment produced the effusion.

Dr. NICHOLS. I am confident of that, unless there was other treatment than that described in the paper.

Dr. KIRKBRIDE. I might say there was no question about this being a case of acute mania in the first instance. This effusion took place suddenly during that particular night. There was no evidence of it whatever, until the next morning. Probably it had taken place within an hour of the visit. The only thing remarkable was that the patient was so changed from her condition of noise to being so entirely quiet. It was supposed that she had gotten into a comfortable sleep. In regard to the treatment of acute mania, I may say that we use the warm bath and cold applications to the head, and all the usual modes of keeping up the circulation of the extremities. We frequently use morphia in connection with small doses of antimony, watching the effect carefully of every dose. We have found that to be one of the most certain methods of treatment. Morphia can often be used with antimony in such cases, when it could not be tolerated at all without it. Under their use the skin will often become moist and the patient quiet.

Dr. CLARK. You will remember that an excellent paper was written and published by Dr. Macdonald, of New York, on Paresis, in the JOURNAL OF INSANITY, only a short time ago. In that paper a statement was made to this effect that, from his experience, the larger number of those thus afflicted came from the lower classes of society. My experience has not been that of Dr. Macdonald's, and I concluded that he had drawn his inference from the fact, that I understand his Asylum is filled with patients who come from the lower classes of society, and therefore, his patients must necessarily come from one source. In Toronto Asylum the patients come from all classes of the community, and I find that the larger number of those thus afflicted come from the best fed, best educated and fastest liver of the community. Now your Asylum, (referring to Dr. Kirkbride), is filled, I believe, with representatives of all classes of the community, and I wish to know whether your opinion coincides with my own. I would like you to answer this question as differences of opinion exist on this point.

Dr. KIRKBRIDE. My experience agrees with your own. It does not occur so much in laboring men as among men who have not labored, certainly not in a righteous vocation. Persons of means whose habits have not been good, have been the class of persons whom I have most generally found affected with paresis.

Dr. RAY. May not that be wholly owing to the social status of your patients, who are wholly from the cultured classes, while Dr. Macdonald's are mostly from the lower classes? The Parisian

hospitals, where the disease abounds, are filled from the lower strata of the population. Let me ask Dr. Kirkbride if he ever met with a case of general paralysis following acute mania?

Dr. KIRKBRIDE. My impression is that this particular case was one of general paralysis from the beginning.

Dr. RAY. I thought you called it acute mania.

Dr. KIRKBRIDE. While Dr. Ray does not think there was any exaltation of ideas, I believe if he had seen the patient he would have had no doubt whatever about it. To her this world was a perfect garden of wealth and beauty. She was like a person that had everything that could possibly be desired. There was perfect contentment in regard to everything and everybody, herself too, exactly as we often see in paresis. The reasons for thinking as I do I have read, however, and any one can judge of their force and correctness.

Dr. NICHOLS. My observation has seemed to justify the conclusion that general paralysis occurs most frequently in people who have lived the irregular life—of people of education, and who are either wealthy themselves, or who have had wealthy connections, or who have been at sometime wealthy, people, who, as a rule, have been, or are able to live well. I recollect very well the inference drawn by Dr. Macdonald, to which Dr. Clark refers, but it seems to me that it was not a just inference. Dr. Macdonald's patients are people mainly supported at the public charge, but wholly from the great city of New York, and embrace everybody—every man who has not himself the means, or who has not near relatives who have the means to pay for his maintenance when he becomes insane, and among them are a large number of educated men, who have seen better days, and who have lived well. Many of them have lived very "fast." My observation shows that what Mr. Lincoln called the "plain people" regular living, plain laboring people, whether mechanics or farmers, rarely have general paralysis. This is illustrated by the fact that the wards of the Government Hospital for the insane, three-fourths of whose patients are from the agricultural, mechanical and laboring classes, having, when I relinquished the charge of it, nearly eight hundred inmates, but of course a less number in the earlier years of its history, sometimes was without a case of general paralysis, while the institution of which I now have charge, with less than two hundred patients from the well-to-do, wealthy and urban classes always has at least half a dozen.

Dr. A. P. REID. Out of some three hundred and seventy-eight patients that I have, a great majority of whom are farmers or

fishermen, and men who have very rarely indulged in the frivolities of life, from their station, I find general paralysis exceedingly rare. I think we only had two cases that we could ascribe to that malady last year. One was a young man who was laboring under, I think, syphilitic disease, and the other, a man who had failed in general business, who, after death, showed a very large hæmorrhagic effusion between the membranes. As a general rule we find that paralysis with us is rare.

Dr. NICHOLS. I think, Mr. President, that the Association would be very much interested in learning the experience of yourself and Dr. Bryce, who have patients we suppose, at least I do, coming from a class of people who are less engaged in the competitions and strifes of business, than the patients of most northern institutions. We would like to hear from you as to the general prevalence or otherwise, of general paralysis in your institutions.

Dr. CALLENDER. In reply to the inquiry of Dr. Nichols, I will say that the proportion of cases of general paralysis received by me is small. At this moment I can call to mind but three or four in the past year or two, in an average population of three hundred and seventy-five who were so diagnosed.

Dr. NICHOLS. What are your annual admissions? From what condition of life are they usually?

Dr. CALLENDER. The cases that have come to me are from the class you have described and not from the plain people, the farming class and the poor who have not the leisure or means for that sort of indulgence which not infrequently induce it. I have not found it among the temperate in all things, or those who live with propriety. Those who are subject to great mental strain or anxiety, who are overworked mentally and physically, or who are given to debauchment in *Baccho vel venere* or both, are most commonly the subject of general paralysis according to my observation. I have now a liquor merchant, far advanced in the decay of paresis, who was the victim of heavy night drinking.

Dr. BRYCE. My experience and views with reference to the prevalence of general paresis in the south, are very much the same as those just expressed by Dr. Callender. During the nineteen years of my connection with the Alabama Insane Hospital, I presume there have been admitted into that Institution, upwards of two thousand patients. Of this number, certainly not more than twenty-five or thirty at most were paretics, and it is, indeed only within the last ten or twelve years that any of this class have been received. It can not be said, in reply to this, that we are not

sufficiently acquainted with this comparatively modern disease to distinguish it earlier. On the contrary, we had often encountered it in other northern hospitals, and had been watching for it to make its appearance in Alabama. According to my observation and experience, nervous disorders of all kinds, including insanity, are not as common in the south as they are in the higher latitudes, and this may account for the comparative infrequency of general paresis in our southern hospitals. What the fact itself depends upon, I am certainly at a loss to say. Dr. Ray in the admirable paper which he read before us in the beginning of the session, lays great emphasis upon the probable effect of our peculiar and rapidly progressing civilization, especially upon the inhabitants of our populous cities, both in the increased production of nervous disorders, and in rendering them less amenable to treatment than they formerly were. Possibly the same impulse is beginning to be felt in the south, and in due time will be followed by a large increase of nervous diseases.

During the last ten years, as I remarked a moment ago, not less than twenty-five or thirty paretics have been admitted to our Institution, and strange to say, all of these were white men from the better classes of the community. They were generally fast liver, but not of pronounced intemperate habits. I have met with but one woman suffering from impairment of motion and the exaltation of ideas so common to paresis, and in her case the other characteristic symptoms were wanting. I have never met with a case of this disease among the negroes, notwithstanding I have had a large experience with this class of insane persons. The histories just read by Dr. Kirkbride, are highly instructive and interesting. The latter I can hardly agree with him in calling general paresis. It is one of those anomalous cases which, as Dr. Ray justly observed, are becoming more common and which simulate in many of their symptoms the most pronounced forms of general paresis.

Dr. CLARK. The general idea is, that drunkenness as well as sexual excesses are the more pronounced causes of paresis. While that may be true to some extent, yet in a large number of cases on close inquiring these are found to be the results cropping up from the impressions the disease has made on the brain. In other words they are results, not causes. The friends of patients thus afflicted, may not have noticed the aberrations anterior to the immoral conduct, but when closely questioned as to the general conduct and particular habits of a paretic, the order of sequence will be found as indicated in many cases.

Dr. NICHOLS to Dr. Callender. What is your experience in regard to paresis among the blacks?

Dr. CALLENDER. I have no recollection of seeing in the African, any type of disease resembling that under discussion.

Dr. NICHOLS. What is your experience, Dr. Black?

Dr. BLACK. I have no experience in treating colored insane. We have in Virginia, a separate asylum where they are treated by Dr. Barksdale. My recollection is, that in his annual report of last year he reported two cases, both living, but I am not familiar with them.

Dr. NICHOLS. I may say in this connection, that in Washington, we began in 1855 with about twenty colored patients, and the number was increased to about fifty, and that I have never seen a case of general paresis among them.

Dr. STRONG. I would like to ask Dr. Nichols what his experience has been so far as regards general paresis in females; whether he has met with clearly marked cases in females?

Dr. NICHOLS. I have never seen but one case that I considered an unequivocal case of general paralysis in a female. I have seen one case, during whose treatment the conviction grew up in my mind that it was a case of general paralysis. At her death, which was in the common manner of general paretics, by convulsions, I entertained no question that it was the disease under consideration.

Dr. BROWN. I am much interested in the discussion, but will take up the time but a moment. My observation of the frequency of general paresis among different classes of people agrees with what has been said by Dr. Nichols and others, that it occurs more frequently among the wealthy, or those who have abundant means to gratify their desires, and more especially among business and professional men, and that the laboring classes are more exempt from it. The Hospital under my care has about five hundred and fifty patients, mostly received from the laboring classes, and at the present time we have not more than one or two cases of paresis. It is undoubtedly much more frequent among men than women, but I have seen several well-marked cases among women, who went through all the usual characteristic stages of the disease.

Dr. BURRELL. There were three cases of paresis among the female patients at Bloomingdale during my term of service. One presented the physical and mental symptoms with unusual distinctness. Two died, but no autopsy was permitted. The other was removed, and trace of her was soon lost. Another case was diagnosed as one of paresis by a New York physician, but the

diagnosis did not accord with that of the officers. A marked case was removed from Brigham Hall a few weeks ago, in an advanced stage of the disease. At the last meeting of the Association, Drs. Compton, Langworthy and Wallace, informed me that they had not seen a case of paresis among the colored people at the south, and Dr. Wallace said he had not met a case among the white people of Texas.

Dr. DRAPER. In the Institution, of which I have charge, it is very seldom that we do not have a case of general paresis under treatment. Last year we had a case of a female who passed through all the typical stages of general paresis, beyond all possibility of mistake, and death followed from convulsions at last. In the cases I have seen for the last half dozen years, that extreme exaltation which was formerly regarded as the most marked diagnosis of the disease, has been more often absent than present, until I have learned to depend little upon that, but to regard that extreme contentment of the person as an important symptom.

Dr. BROWN. In one of the cases, the woman had a history of excessive sexual indulgence, and was in the habit of drinking to excess. In the others there was no evidence of that character.

Dr. STRONG. I have had several cases and we now have in one of our female wards, a clearly marked typical case. So far as my observation goes, exaltation is not as prominent a symptom in the general paralysis of females as males. By going back to physiology we may, perhaps, find a key to this difference. Do we not observe in nearly all affections of the cerebro-spinal system of males, more intense, prominent and stronger symptoms than we do in females, where the same centers are involved? May not this difference be accounted for in part, at least, by the modifying influence exerted by the great sympathetic system upon the functions of the cerebro-spinal system in females? Is not this a point worthy of our consideration?

The minutes of the sessions of the day were read and approved, and on motion the Association adjourned.

JUNE 13, 1879.

The Association was called to order at 10 A. M., by the President.

Dr. Godding introduced to the Association, Dr. T. W. Fisher, of Boston, who was invited to take a seat with the Association.

Dr. KIRKBRIDE. Mr. President, I would beg leave to remind the Association that in addition to Dr. Compton, we have during the past year, lost another member of the Association from the south, Dr. Thomas F. Green, of Georgia, one of our oldest members, and who has, on several occasions, participated in our proceedings. Those who were in Philadelphia at the centennial meeting may remember his presence there, and his activity in the cause. I beg leave to move that Dr. Peter Bryce, of Alabama, be appointed by the Association to prepare a notice of the late Dr. Green, to be presented at the next meeting of the Association.

The motion was seconded and agreed to.

Dr. BLACK. I would like to make a remark or two in explanation of a remark I made last evening, in answer to an inquiry made by Dr. Nichols as to cases of paresis existing in the Central Asylum for the Colored Insane, in Virginia. I remarked that I thought that Dr. Barksdale had reported two deaths from paresis in his last report, I have since found in looking at one of his reports, which I happened to have with me, that I was mistaken as to his having reported any deaths from paresis, but that his report shows four cases of paresis admitted previous to last year. It would be interesting to ascertain hereafter what became of these cases of paresis.

Dr. A. P. REID. I have been experimenting on a means of communicating with different parts of an institution, and so far have been successful. Electric bells are very convenient, but very apt to be out of order, and in any case the communication is in one direction. I can understand how a telephone would be useful, but having no experience, I would wish other gentlemen to give us their results, and perhaps others may be able to give more information than I on the subject of which I am about to speak. I have found with "speaking tubes" that the distance over which they can be used is a "varying quantity." I put up a line of tubes, (made out of "inch pipes" from old "steam coils"), and found that without difficulty, I could converse for a distance of four hundred or five hundred feet. In placing the pipe throughout the building, I put it in the basement, where all the other pipes are, and possibly there may be an advantage in this, compared with a pipe

surrounded with masonry, and hence with little chance for vibration. If the speaking orifices are properly closed, there may be a number of openings into the same pipe for different wards. The mouth-piece should be one continuous tube, without the ordinary "valve" or box, which interferes with the vocal vibrations just as they start on their mission. I arranged a slide valve "to open or close," which, pressing against a rubber washer, is so tight, that through four hundred feet of pipe, and several openings, a slight "whiff," blown into it has sufficient force to blow a whistle and throw back a "tell-tale" in the office in the center building, to indicate the section from which the signal comes. The valve, when opened, closes automatically by a weight. The tube has no sharp corners, long sweeping bends being used, and the separate tubes are "budded" in the couplings and all rough edges removed, so that the whole line has no break in the continuous smoothness inside. Iron tees, (T), are used at the "branch" mouth-pieces, great care being given to the interior smoothness. Extra attention to the minor details are necessary to success. By means of a pipe, as above described, signals could be sent and received independent of its use as a speaking tube, for a slight tap of a key is heard with great distinctness the whole length of the line. The "Morse" alphabet, or signals similar to it, could be made into a code and used as a means of communication from either end, if the voice were indistinct through the tube. I have been very much pleased in so far with the tubes. The electric bells call the attendant who signals, by a whiff into the tube, which blows the whistle and raises the tell-tale, then the conversation is carried on. They can blow the whistle in the office in central building from the wards at any time. Next year I will be able to speak more positively as to its working. Others, and perhaps Dr. Morse from Ohio, can tell us of similar plans, but "tin" speaking tubes over long distances, as far as I know, have failed. There are many details that I will not detain you by giving, but I have referred to the more prominent ones.

Dr. Kempster exhibited, by the microscope, a series of preparations of morbid conditions of the spinal cord, with explanations of the same, and a statement of the history of a particular case.

On motion, the Association adjourned to 8 P. M.

The Association spent the afternoon in an excursion down the Narragansett Bay to Newport, partaking of a clam bake at Rocky Point, and also visiting the United States Torpedo Station, and returned to the city at 7.30 P. M.

The Association was called to order at 8.30 P. M., by the President.

Dr. Steeves from the Committee to prepare a memorial of Dr. John Waddell, stated that he hoped to forward the memorial in time for insertion in the proceedings.

Dr. Chapin from the Committee on resolutions, made the following report, which was unanimously adopted :

The Committee on Resolutions at this, the closing session of the Thirty-Third annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, held in the city of Providence, R. I., and occurring on the anniversary of a similar gathering seventeen years ago, deem it a fitting occasion for congratulating its members that its deliberations have been harmonious, and continue to be, as in the past, well calculated to promote the interests of the department of medical study and practice in which they are particularly engaged; and that the opportunity has been again enjoyed of forming and cementing the most agreeable personal and social relations, do recommend the following resolutions as an expression of acknowledgment and thanks for the generous hospitality which has been so bountifully and generally bestowed upon the Association, as well as for the facilities which have been placed at our disposal for the purpose of visiting the various public institutions in the city and State :

First. To His Honor, the Mayor, Thomas A. Doyle, and members of the city government, for their welcome and reception at the City Hall, and the opportunity afforded of visiting and admiring this splendid and substantial structure.

Second. To the President of the Board of Trustees of the Butler Hospital for the Insane, to the Trustees of the Corporation, to Dr. Sawyer, Superintendent of the Hospital, to his Excellency Governor Van Zandt, to Chief Justice Durfee and all the distinguished ladies and gentlemen, representatives of the professional,

educational and business interests of the city of Providence who were present on this occasion, we record our special obligations for a most enjoyable and profitable day spent at the Hospital, and for generous hospitalities dispensed upon the lawn of the Hospital grounds. It will ever be regarded as among the agreeable and fortunate individual experience of the members of this Association, that he was present on an occasion that brought together in social intercourse, so many representative men of this commonwealth, whose gifted tongues so ably illustrated the intimate bond and relationship which exists between all classes and professions. In the present excellent condition of the Butler Hospital, we recognize the result of well conceived plans, persistent and patient effort, and the union of those higher, moral, professional and substantial forces which honor and distinguish our humanity and Christian civilization. We have not failed to observe the marked characteristics of the Butler Hospital, in the decided preference evidently entertained by its honored Board of Trustees, and which we heartily commend, for expenditures which add so much to the internal household comfort of those persons who are to occupy and live in the buildings, than for those exterior decorations which serve to interest the curious visitor or to glorify a State.

The Association regards it as one of the felicitous incidents of this visit that they had the pleasure of meeting and paying their respects to Miss Dorothea L. Dix, and Dr. Isaac Ray the first Superintendent of this Hospital, and to Dr. John S. Butler, formerly Superintendent of the Hartford Retreat, who, though they have retired from their active professional work, still retain their zeal in behalf of the class of afflicted persons whose interest it is the special labor of this Association to promote.

Third. To the Board of State Charities and Corrections we express our special thanks for an invitation, and for conveyances to visit the State Asylum for the Incurable Insane, Workhouse and House of Correction, located upon the State Farm, and the State Prison. Also our acknowledgments to President Chace, the Members of the Board, Superintendent Blaisdell, and Warden Viall, together with their associate officers, for their personal attendance upon the Association, in an examination of the several Institutions under their care. The Association has observed with gratification the manifest evidence of thrift and good management, which come from simple, responsible, well directed efforts. While it is not the province of this Association to express any opinion upon the methods and system any State may in its wisdom, deem

it proper to adopt, it may with propriety express the opinion that in these institutions, and in the impulses which have led to their creation, there is much to commend. In the attempt to remove all of the insane poor, who require the custodial care of a hospital or asylum, from the local almshouses to State institutions, under State supervision, visitation, and responsibility, administered without political influence, we recognize the adoption of one of the honored principles of this Association. Under conscientious, responsible, professional direction, no apprehension need be entertained of deterioration, but the assurance and hope may be confidently indulged that the standard of care will be an ascending one. In the construction, plans and system of the State Prison, it has been a pleasure to observe, so far as the brief visit would admit, the adoption of the very excellent methods for securing reformation and insuring wholesome prison discipline, which with the present light, promise the best results.

Fourth. To the President and the Trustees of the Butler Hospital for the Insane, for the novel and extraordinary entertainment at Rocky Point, and the splendid excursion over the Narragansett Bay to Newport, a fitting climax and close of a series of hospitalities and personal attentions, without a parallel in the history of the Association.

Fifth. To the Medical and Surgical Staff of the Rhode Island Hospital, for an invitation to visit the well-appointed wards of this Hospital, and to Surgeon Caswell for his personal attendance upon the Association.

Sixth. To Captain Ramsay, U. S. N., for an opportunity to observe the operations at the Torpedo Station, and for his explanation of the work conducted at that point.

Seventh. To the President and Directors of the Redwood Library for an invitation to that historical institution.

Eighth. To the President of Brown University for an invitation to visit that Institution. To the Young Men's Christian Association, for the use of this hall. To the Gorham Manufactory Company, for an invitation to visit that establishment, and to all citizens and associations, who by personal attentions and courtesies, have contributed to make our stay in Providence so agreeable and enjoyable.

Ninth. Our acknowledgments are due to the gentlemen of the press for their faithful attendance upon the sessions of the

Association, and their faithful report of its proceedings, and to the proprietors of the Narragansett House for their attention to our comfort.

JOHN B. CHAPIN,
JOSEPH A. REED,
W. W. GODDING,
Committee.

On motion of Dr. Curwen, the Association adjourned to meet in Philadelphia, on the fourth Wednesday of May, 1880.

JOHN CURWEN, *Secretary.*

ULTERIORI CONSIDERAZIONI SULL' ARGOMENTO DELLA COSÌ DETTA PAZZIA MORALE.

PEL DOTT. C. BONFIGLI,
Medico-Direttore del Manicomio provinciale di Ferrara.

[ULTERIOR CONSIDERATIONS ON THE DISCUSSION OF THE SO-CALLED MORAL INSANITY. BY DR. BONFIGLI, MEDICAL DIRECTOR OF THE PROVINCIAL INSANE ASYLUM, OF FERRARA.]

Translated from the *Revista Sperimentale di Freniatria e di Medicina Legale*, published at Reggio Emilia, Italy.

The last quarterly number of the above review, amongst a galaxy of able and instructive articles, presents the first part of a contribution by Dr. Bonfigli, elicited by the published observations of Tamassia, in advocacy of the theory of our modern moral insanity. We should feel much pleasure in reproducing this article in full, did our available space permit. We are, however, from its great length, obliged to restrict our transcriptions to a few of the more forcible passages, which may prove interesting to that class of our readers whose views accord with the opinions expressed by Dr. Bonfigli, whilst we doubt not they will be read with due consideration by his opponents. The author, in the commencement, enunciates the following proposition:

“There can not exist a mental disease characterized solely by the absence of the moral sense, since this is not the product of any cerebral organ, but truly a product of the intelligence and education.”

He then divides his thesis as follows:

“1. In the so-called moral insanity there is always some lesion or defect of the intelligence, but this is denied by those who have created the denomination, moral insanity.

"2. The distinction of the faculties of the mind into moral and intellectual, is a metaphysical distinction, and solely upon this is founded the idea of a moral insanity, as an independent Phrenopathia.

"3. The admission of a disease characterized by the absolute absence of the moral sentiment, obliges us also to admit the existence of an organ of the brain for the elaboration of the idea of morality.

"4. This mental condition we regard as a partial imbecility.

"5. We do not innately achieve ideas solely moral.

"6. Exposition of elementary and complex psychical phenomena; origin of the idea of morality.

"7. Why the moral ideas are prevalently defective in the partially imbecile; the moral sense according to *Stuart Mill* and *Bain*.

"8. The want of the moral sense in the partial imbecile is not an absolute necessity."

In the course of his argument in support of the preceding principles, Dr. B., among other observations, has the following, which we abstract from the body of his article:

"I do not, in truth, comprehend how an alteration, or, I shall add, a defect in the process of ideation, ratiocination or discernment, can render an individual actually unfit for the acquirement of the normal idea of his relations with the social world, leaving him more or less free for the achievement of other ideas; to me it appears that unless we decide on making an arbitrary distinction of ideas according to metaphysics, we should rather say that the alterations or defect render the individual unfit for ideation, reasoning and discerning, in general, and not alone as to his relations to the social world." "I do not betake myself to a phantasm when I seek to prove that an isolated lesion of the moral sense does not obtain, and that this, unless in common malefactors or savages, is always associated with a lesion or defect of the general intellectual powers."

The author, a little further on, quotes the following passages from *Falret*:

"Can the sentimental and affective faculties, through disease, suffer lesions separately, without concomitant disorder of the

intellectual faculties? or, rather, on the contrary, notwithstanding the predominance of lesion in the one or the other, does there not exist a simultaneous alteration of these two orders of faculties? This is the first question to be put in relation to moral insanity, a question fundamental, *par-excellence*, because the essential and characteristic fact, on which all authors have rested this particular species of mental disease, has rested precisely on this primitive datum of an exclusive lesion of the affective or instinctive faculties, without any disorder of the intelligence. This is the basis on which the discussion has been carried on since the beginning of the present century. It is asked, does there really exist an insanity without delirium, (moral, or affective, or reasoning), in which only the sentiments and instincts are perverted, whilst the intelligence remains perfectly untouched? * * * I shall limit myself to saying that, for my part, I both theoretically and practically believe in the complete solidarity of action of the diverse faculties of the mind, as well in the sane as in the insane man. In reasoning, or moral insanity, clinical observation proves, as I think, that there may indeed be a predominance of lesion of the moral or instinctive faculties, but not with complete absence of disorder of the intelligence. In the normal state psychologists have not admitted the existence of distinct faculties, unless for facilitating the study of them. In reality they are but different modes of psychological activity, indivisible in their unity. These faculties can not act isolately in the normal state, neither can they be separately affected by disease.

“The fundamental vice of all the completed works of the age, by the alienists of every country, has in fact been the wish to transport, purely and simply, into mental medicine, the division of the faculties admitted by the psychologists of the profession for the study of the normal man. The phrenological school, above all, with its founder, Gall, at the head, has proclaimed this fragmentation, and this possible isolation of the human faculties. Pinel had already entered on this scientific direction, imposed by the philosophers, creating, as a distinct species, his *manie sans delire*, characterized by an exclusive alteration of the sentiments and instincts, without lesion of the intelligence. Esquirol followed in the path of his illustrious master. In England, Dr. Prichard, in his treatise on mental diseases, equally admitted, as a distinct species, moral insanity, depending solely on isolated lesion of the sentiments and instincts, and corresponding very nearly to the *manie sans delire*, of Pinel; and the majority of English physicians

since that time have accepted this form of insanity as it was defined by Prichard. In Germany medical alienists of the beginning of this century—as Reil, Heinroth, Hoffbauer, &c.—had sustained the reality of a mania without delirium; but from 1822 Hancke, the celebrated founder of the *Journal of Legal Medicine*, which has been perpetuated down to our day, commenced his reaction against the reigning doctrine. The dispute upon so capital a question, among the German physicians, from that time onwards has been lively; but by little and little the opinion on the principle sustained by Hancke has finally triumphed, and is to-day dominant in Germany. Griesenger, in his treatise on mental diseases, proclaims, with all clearness, that insanity without disorder of the intelligence does not exist, and he goes so far as to say that the creation of a mania without delirium, by Pinel, has been a disgrace to science.

“In France, in 1819, my father, in his thesis, initiated the reaction against the doctrine of Pinel, denying absolutely the existence of mania without delirium. Marc, Georget, and the greater part of the students of Pinel and Esquirol, have persisted in the doctrine of their master, and even now the possibility of an isolated lesion of the instinctive faculties in moral insanity is admitted. A few medical alienists have, however, begun to abandon this manner of viewing the subject too exclusively, and for our part we are convinced that a more complete and vigorous clinical study of the facts now artificially grouped under the title of a *manie sans delire*, will lead all conscientious observers to recognize the exactitude of the thesis which is to us at present a demonstrated verity, to wit, that in mental alienation there never exists an isolated lesion of the sentiments and instincts, without simultaneous perturbation of the intellectual faculties, or, in other terms, that there is no such thing as a *manie sans delire*.”

After the preceding quotation from *Falret*, Dr. B. makes the following remarks:

“It is true, as Tamassia says, that absolute absence of the moral sentiment in moral insanity, is admitted by the most strenuous writers, yet these do not conceal the fact that it is accompanied by a general depression of the intellectual powers, such as to have warranted the conferment of the name sufficiently expressive of partial idiocy, or moral imbecility; but I must intimate to my distinguished opponent, that the writers cited by him are very far from admitting the theorem which I have desired to establish, the

indivisible solidarity of the psychical faculties both in health and disease. In reality, if these writers hide not the fact that absolute absence of the moral sense is generally accompanied by depression of the intellectual powers, they do so, because even whilst wishing to interpret it in accordance with their pre-conceived ideas, they are honorable men, and incapable of disfiguring the truth; but the intellectual lesion is regarded by them as merely a secondary phenomenon, accidental and not constant, because otherwise they would have found their moral insanity devoid of foundation." "The denomination, moral insanity, is quite absurd, because in these cases which can not be reduced to the known forms of insanity, the advocates of this doctrine treat not of a disturbance, or a disconnection, of the elementary psychical phenomena, but merely of a debilitation, and therefore not of a true insanity, to which the term moral does not convene, insomuch as we then come to take account of an accessory, and not a necessary psychical phenomenon, not directly connected with a relative organic condition. The term moral insanity can be accepted only by those who hold that moral ideas are elaborated by a distinct organ, and by those indoctrinated in the school of metaphysics, who finding themselves with one foot in this, and the other in the somatic school, continue to distinguish phrenopathies by the words and the actions of the diseased, and who reckon as substantial elements of nosological forms, whatever may be the predominant ideas in every delirium. It may please my opponent to accept as scientific, the denominations, religious monomania, suicidal monomania, homicidal monomania, and perhaps even bestial and jealous monomania; but it pleases not me, and I reject the term moral mania, because just as the others, it is derived from the aspect of the actions to which the individual abandons himself."

Only the first portion of Dr. B.'s paper is given in the present number of the *Revista*, and this covers forty-eight pages, which would probably equal over sixty of the JOURNAL OF INSANITY. It is therefore impractical to us to present more copious extracts, though we should much desire that the entire article were available by all our readers. We close our citations with the following passage, in allusion to the expert examination of alleged moral lunatics, and the char-

acter of the evidence to be formulated and tendered by medical witnesses:

“Proceeding in this manner, I firmly believe that our task will be rendered much more easy. When in fact we are summoned to give our medico-legal judgment on the state of mind of an accused person, who presents a notable perversion of the moral sense, if this perversion be due to an abnormal organization, by a close investigation and an analytic study of the functions of the nervous system of the individual, that is to say, of the sensibility, and of the motility of the elementary psychical phenomena, we shall always find in these functions, either a disorder acquired, which will conduct us to the diagnosis of one of the forms of a known insanity, incipient or fully developed, or a congenital weakness, which, according to its degree, will guide us to the diagnosis of a phreno-asthenic state, which may vary from absolute imbecility to the most trivial degree of partial imbecility. But when, on the contrary, no indication authorizes us to believe, and to judge, that the individual under examination is affected by any of the forms of insanity already known, and when the perfectly normal development of the elementary psychical phenomena, (perception, memory, association, ratiocination, judgment), assure us that the intelligence is not feeble in any of its diverse modes of existence, our task is finished. The accused, if guilty, is not so from defective organization, and it rests with the magistrate alone to decide whether ignorance and a vicious education, should be regarded as circumstances, independent of the will of the accused, sufficient to lessen his responsibility.”

HYSTERICAL DEMONOMANIA.

The *Italian Review*, containing the article by Dr. Bonfigli, on Moral Insanity, publishes also a very elaborate report, covering eighty pages, on an epidemic of Hysterical Demonomania, (*L'Epidemia di Istero Demonopatie*), which prevailed a few months ago at a small town named Verzegnis, in the Province of Friuli, northern Italy, by Drs. Giuseppe Chiap and Fernando Franzolini. The facts given to light by these gentlemen must strike all readers residing in any civilized country, with utter amazement; they are a veritable reproduction of the ignorance and gross superstition which prevailed two hundred years ago in Europe, and which in the end of the seventeenth century, so lamentably disgraced our own country, as any one who reads Upham's History of the Salem Witchcraft will readily admit. In mitigation, however, of the moral and mental barbarism evinced by the villagers of Verzegnis, as compared with the intellectual condition of our New England fathers, it must be noted that the former are held in a state of the most plastic ignorance, and that they are, by reason of their almost total mountainous isolation from the entire world of civilization, debarred from all the means of intellectual advancement..

The facts detailed by the two medical commissioners, who were deputed by the government to investigate the epidemic, are highly instructive, in both a scientific and a practical relation, presenting to the medical alienist, in a magnified form, those characteristics of hysterical insanity, with which he has had isolated opportunities of becoming acquainted, and admonishing him as to the chief sources of danger, contributing to

the spread of the malady, and its culmination in an overwhelming epidemic form.

Amongst these simple Italian mountaineers, belief in witchcraft, demoniacal possession, sorcery, and other phantasms of the uncultured mind, appears to be very deeply rooted, and the painful truth is too clearly established by the commissioners, that their credulity, instead of being attenuated by the instructions of their spiritual guides, is actually intensified by them. The unquestioning populace are confirmed in their gross superstitions, by the clerical recourse to the ritual of exorcism, as the surest and only means of curing a somatic disease, which they teach their flocks to ascribe to supernatural agencies. There can be little doubt that the inculcation of this belief is a no unimportant source of ecclesiastical revenue, and we need not wonder that the commissioners had to encounter formidable obstacles in their endeavors to uproot it. In truth, notwithstanding, their most strenuous efforts, in two distinct visitations, they confess that they signally failed, and it was only when they prevailed on government authoritatively to interpose, and command that all the affected persons, who were exclusively females, should be removed and placed in the District Hospital at Udine, that the antagonism to their views was fittingly encountered; and even then, mere moral force was found to be utterly valueless, for it was not until a company of soldiers had been sent up to Verzegnis, to escort the patients, seventeen in number, to the Hospital of Udine, that the rabid inhabitants gave way. A note at the end of the report, dated May, 1879, states that an infuriated mob, consisting chiefly of men, formed a public solemn procession, insisting that the disease could not be cured, unless by the expulsion of the demons that had provoked it. The writer quaintly,

and but too justly, observes: "It is certain that if the possessed had requested a human sacrifice, in that fever of superstition and fanaticism, some one would have been found to execute the demand." The report states, on the authority of Dr. Tomassa La Vasco, of Palermo, that a similar outbreak of hysterical mania took place a few years ago, in a convent in that city. The malady rapidly spread among the sisterhood, when Dr. La V. bethought himself of an impressive line of physico-moral treatment. It was raw winter. He threatened "to immerse every affected woman in a very cold bath; and if the convulsions should be repeated, he would inexorably apply the actual cautery behind the ears." Not a single attack afterwards took place.

BIBLIOGRAPHICAL.

BOOK NOTICES.

A Manual of Psychological Medicine, Containing the Lunacy Laws, the Nosology, Ætiology, Statistics, Description, Diagnosis, Pathology and Treatment of Insanity, with an Appendix of Cases. By JOHN CHARLES BUCKNILL, M. D., London, F. R. S., F. R. C. P., formerly Lord Chancellor's Visitor in Lunacy, and by DANIEL HACK TUKE, M. D., F. R. C. P., Joint Editor of the *Journal of Mental Science*, formerly Lecturer on Psychological Medicine at the School of Medicine, and Visiting Physician at the York Retreat. Fourth Edition. London: J. & A. Churchill, New Burlington Street, 1879.

That this work has already won a most important position among treatises on insanity, is proved by the number of editions which have been called for by the profession. The third edition was issued in 1874. It is not too much to say that it is the best and most favorably known to the medical and legal professions, by both of whom it is quoted as the highest authority. It has acquired this enviable standing from the high reputation of its authors, from the correctness of the views and opinions expressed, and from its fullness. More than any other work by English authors, it deals with the subject of insanity in all its relations, and gives in a condensed form, the most important conclusions from home and foreign writers of prominence or authority.

The general features of the third edition have been reproduced in this. There is almost the same amount of matter, and it is divided into similar chapters, so that the index of the one varies but little from that of the other. It is evident that we must in comparing the

two, examine still more closely to detect and note the differences. The first chapter remains substantially the same. The second chapter has been rearranged in some unimportant particulars, but in better accord with the natural order. Some new matter has been introduced, especially in quotations from some American reports, and substituting later statistics from public documents. In chapter third, on the various forms of insanity, we are pleased to note a modification in the authors' views, regarding the existence of acute dementia, and he says: "We are rather skeptical as to the occurrence of primary acute dementia being so frequent as is sometimes supposed, many of these cases being, in the first instance, examples of melancholy delusion." Sphymographic tracings have been added, taken from Dr. Hun's article on the pulse of the insane, published in this JOURNAL, January, 1870.

The section on moral or emotional insanity has been greatly changed, and the author in giving this form a position in the work, thus expresses himself: "At the same time, we hold that the cases are rare in which disorder of the intellectual faculties, can not, sooner or later, be discovered by careful observation, and to this end the attention of the observer ought to be carefully directed in each case." This is narrow support for a form of insanity.

The position taken upon the subject of transitory mania, is, we believe, the correct one. It is probable, that in nearly all, if not all instances, there has been, as the author says: "*petit-mal*;" and further: "In the emotional disturbance we should include the morbid feelings of the patient, both mental and physical; and if the truth could be ascertained, we have no doubt such would, in the vast majority of cases be discovered, &c." Much less space has been devoted to the division of "homicidal

mania." "Epilepsy, in relation to homicidal acts," and "Murderous impulse with delusion," are substituted. Though this is certainly an improvement upon the former chapter, we can but regret the introduction of the term impulse, in this connection. The other diffuse sub-divisions of mania remain, we regret to say, substantially as before.

Chapter IV has been largely recast, and a new nomenclature introduced, under the divisions Protopathic, Dueteropathic and Toxic insanity. Considerable new matter appears on the subject of general paralysis or paresis. On the subject of epileptic insanity, the labors of Dr. M. G. Echeverria receive due notice. There are few, if any, forms of insanity in which greater progress in scientific research has been made during the past decade than this. It merits the attention it has received.

The fifth chapter on diagnosis, presents but few changes from the former edition, and those of no special importance.

Chapter VI treats of the Pathology of Insanity, including the morbid Histology. It occupies one hundred and forty-six pages of the book, and presents a summary and a critical review of our knowledge of the condition of the brain, as the organ of the mind, in cases of insanity. The arrangement of the material is in general, the same as in the preceding edition, yet, it is more distinctly formulated, and the authors in speaking of diseases of the brain, in relation to insanity, desire to be understood as speaking of the grey cortex of the cerebral convolutions alone, as the seat of the intellectual and the emotional functions of the nervous system. In the morbid histology, therefore, the lesions of the cord have been left out entirely in this edition.

The lesions observed in the brains of the insane are considered according as they affect; 1, the membranes;

2, the epithelium; 3, the blood-vessels; 4, the neuroglia; 5, the cells; 6, the nerve fibers; 7, the histological appearance of special lesions noticeable by the naked eye is referred to; 8, the sympathetic ganglia in the neck.

Added to this edition are the following points of interest. The examination of fresh specimens is more strongly recommended, after Prof. Rutherford's method. In describing the lesions of the pia mater, attention is drawn to the thickened condition not uncommonly found in the brains of sane people, more especially in those of advanced age, and probably in many cases, to some extent, associated with chronic alcoholism. To the pathological changes in the blood-vessels, the "vitreous degeneration of the coats," is added, as described by M. Mierzejewski in general paresis. Under the head "thickening of one or other of the coats," the author remarks:

"In some cases the arteries have been found more or less thickened as to their muscular coats, and more especially as to their outer fibrous coats, the effect of which is to completely occlude the vessels in many instances, and in all very materially to modify their caliber. As these vessels were found in subjects whose clinical history gave a distinct account of long standing syphilis, they were regarded as probably syphilitic, but in the present position of the question of syphilitic arteritis and the absence of anything absolutely histologically characteristic of syphilis in their appearances, we express ourselves with some reserve as to their actual nature."

In speaking of the proliferation of the nuclei of the walls of vessels, Dr. Meyer's opinion is referred to, that there are actually cells, not nuclei, in the walls of the vessels, and it is added that "some authors have described a spiny condition of the capillaries, produced by numerous filiform appendages, or by the prolongations of the cells of the connective tissue, touching their walls and giving rise to this appearance."

Under the head "Microscopic Aneurism," those observed in the pia mater are added, and the fact that microscopic apoplexies are common in general paresis.

To the chapter is finally appended a detailed description of the minute histology of general paralysis and senile dementia, after the careful descriptions of Herbert Major and of Mierzejewski.

In chapter VII, the treatment of the disease is discussed. Here also, little has been added to the principles laid down in the third edition. In the part treating of the medicines administered, we find under the head "Hyoscymus," "It is a temporizing medicine with virtues far inferior to the opiates," and added to this, "and no more, we think, can be said of its alkaloid."

Under the head of "Conium," the report of Dr. Sherlock "that he has tried the succus conii in several cases without success," is replaced by the remark that the continental preparations have been found much stronger and more efficient than the home-made ones. Yet the author adds:

"One London firm of druggists does make a good succus, from which we have obtained excellent results, both in cases of mania and melancholia, where there was great muscular restlessness. It appears to allay both irritability of temper and excessive mobility of muscle, and we have seen several well-selected cases recover under its unaided influence. It may, however, be assisted by combination with nervine stimulants, and anti-spasmodics, especially with camphor and ammonia."

In the following line, (page 719), the word "opium," in the third edition, as requiring in a considerable proportion of the cases, in which it is useful, the aid of stimulants, etc., is replaced by the more general expression "narcotics."

Under the head "Chloral," the remarks of Dr. Blandford, that in his opinion, the repeated use of chloral, when producing six or seven hours sleep, night after

night, must be in the end beneficial, and must tend to shorten, not to prolong the disorder, is followed by the question: "But does it shorten the disorder?" Farther on, (page 725-727), the therapeutical value of the drug is more closely discussed, and the author says:

"Chloral we consider to be rarely curative, but frequently useful in alleviating distressing sleeplessness, or more distressing violence after the epileptic paroxysm. In unskillful and unscrupulous hands there is great danger of its abuse, etc." * * *

"The danger of its use being in depressing nerve and brain power, the safety and benefit of its employment will be found in those cases where the nutrition of the nervous system is so active that its functions are not easily depressed by the drug." * * *

On page 726, under the head of "Stimulants," where, in acute maniacal delirium, the administration of dietetic stimulants and food, solid or half solid, is recommended, and warm baths with cold lotions to the scalp or the ice cap; the closing sentence reads: "But beware of hypnotics," leaving out the words added in the third edition; "Or if any of them be used let it be chloral."

In the appendix, the No. 3, "Recent returns of numbers of insane, and mortality of the insane," is new.

We abstain from any further remarks upon a book, which for more than twenty years has been a standard guide in the hands of the alienists of all countries.

Physiology and Histology of the Cerebral Convolution; also, Poisons of the Intellect. By CHARLES RICHTET, A. M., M. D., Ph. D., (former Interne of the Hospital of Paris). Translated by EDWARD P. FOWLER, M. D. New York: Wm. Wood & Co.

Dr. Fowler, the able translator of Charcot's excellent "Lectures on Localization in Diseases of the Brain," has again gifted American medical literature with a most valuable product, of French-origin. Dr. Richet's comprehensive essay can be aptly considered as a very timely complement to Charcot's book, before mentioned.

It presents in clear and instructive language to the reader, the summary of our present knowledge of the topographical and the minute anatomy of the cerebral convolutions and of their physiological functions, as far as they are claimed to be explored by Fritch and Hitzig, by Ferrier, Carville, Duret and others. Many of the conclusions which the author draws from these investigations, will, of course, be disputed. The little book, however, will find a large circle of readers, and this the more, as it contains much original work by the author himself. The little pamphlet, which is added, considers the physiological actions of alcohol, chloroform, haschisch, opium and coffee upon the central nervous system, and their consequences.

Physiological Therapeutics. A New Theory. By THOMAS W. POOLE, M. D., M. C. P. S., Ont. Toronto.

The author presents, as he announces in his preface, not a new system of medical practice, but a new theory of the inter-relation of nerve force and muscular tissue throughout the body, including the relation of nerve and muscle in the coats of the arteries, whereby their caliber is regulated, and of the mode of action of that large class of drugs which operates through the medium of the nervous system. The facts discussed in the work are not new, but the interpretation, as given by the author, differs materially from the views generally sustained by scientists. The main principle which lies at the foundation of the author's views, is the acknowledgment of an inherent contractile power of their own in the muscular tissues, generally, of the body, and that of a restraining and not a compelling power of the influence which the nervous system exerts upon the muscular tissue. The book is the result of deep scientific studies, and original thought, and will not fail to attract the attention of the medical profession.

General Index to the first Twenty-four Volumes of the Journal of Mental Science. By G. FIELDING BLANDFORD, M. D., late President of the Medico-Psychological Association, with Historical Sketch by D. HACK TUKE, M. D., co-editor of the *Journal*. London: J. & A. Churchill, 1879.

An index of a journal of the importance of this possesses a value far beyond that of its actual cost, as the assistance to the busy practitioner of medicine, who is at the same time a studious man, can hardly be estimated. Its real value, however, depends much upon its arrangement, which in the index before us is admirable. Each article is indicated by the name of the author and by the most prominent word of the title. Under the author's name is given a list of all the articles written by him, with full title. Under the prominent name of the article is given all the articles upon the subject, with name of the author of each, the volume and page. This makes it easy to find any paper or subject desired. The time can not be distant when such work must be done for all the prominent medical journals. From the historical part of the work we learn that the Medico-Psychological Association was formed in July, 1841, under the name of "An Association of Medical Officers of Hospitals for the Insane." At the first meeting there were six gentlemen present. The number of members at the present time is three hundred and ninety. The journal was established by the Association in 1853, as the *Asylum Journal of Mental Science*. This name was changed in 1858 to the one it now bears. It is interesting to note the fact that the Association of Medical Superintendents of American Institutions for the Insane was organized October 16, 1844, and that the first number of the AMERICAN JOURNAL OF INSANITY was issued in July of the same year.

TRANSACTIONS OF SOCIETIES, PAMPHLETS, &c.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-First Annual Session, held at Baltimore, Md.: April, 1879.

In the transactions of this Society, we usually find articles of interest to the profession, and in the present volume we are not disappointed. The first article is on "The Physiology of Secretion," by Prof. H. Newell Martin, of Johns Hopkins' University. The author, as he modestly states it, attempts to show that physiological experiment affords at least, suggestive material for pathological work and thought. "Glaucoma," by Dr. J. A. White, and "Facts regarding Squint," by Dr. J. J. Chisolm, constitute the contributions on ophthalmological subjects: An article on "Yellow Fever," by Dr. T. B. Evans, and the "Report of a case of Cerebro Spinal Meningitis," by Dr. C. H. Ohr, precede the reports of the different sections on medical subjects. Among these reports, is one by Dr. J. S. Conrad, on "Results of the Treatment of the Insane," which is extraordinary in character and statements. The whole report would seem to be an attempt to belittle and decry all advances in medical science, both sanitary and therapeutic. The statistics of the Bay View Asylum, which is the county receptacle for the city of Baltimore, for the care of "idiots, inebriates, epileptics and chronic insane," is compared with those of the Maryland Hospital for the Insane, and the Mount Hope Retreat. They show that the number of "recovered and improved" is, twenty-eight per cent larger in the former than in the latter institutions, an exhibit which does, if unexplained, prove the superiority of crowded rooms, with only "fifty cubic feet of air per patient," and "notori-

ously defective ventilation," of poorer diet, less of medical care, and of the absence of moral treatment, "with no efforts to amuse or divert the mind" over institutions where everything in the way of buildings, diet, and the best known methods of care and treatment of the insane are provided and employed. One can hardly conceive that the writer was really in earnest when he penned the article, and thus contributed to the promulgation of such views. There is, however, no appearance of humor, nor such an application of the statements as would contradict the conclusion to which they logically lead, viz.: That the more unfavorable the hygienic surroundings, the less that is done, medically and morally, and the more hopeless the class of patients, the better is the result in the treatment of the insane. This is either science run mad, or a step which would lead beyond the confines of modern civilization, pure air and cleanliness. Analysing the statements, we find three elements which may fully account for and completely refute the conclusions to which Dr. Conrad has been led.

1. How many of the "idiots, inebriates, epileptics and chronic insane," were inebriates, who were received as drunk and discharged as sober," and how often was the same individual treated during the year?

2. How many of the "recovered and improved" were recoveries, and how many improved. What was the degree of improvement, and how did the standard in the different institutions compare?

3. Is it unfair to state that the author of the report was the Superintendent of the Maryland Hospital during the year under review, and to ask how much influence that might possibly have had on the report, especially as he has been superceded?

Transactions of the Thirty-Fourth Annual Meeting of the Ohio State Medical Society, held at Dayton: June, 1879.

In the volume of the transactions for the year, there are several articles, which, from their merit or from the statements made, challenge attention. The address of the retiring President, Dr. B. B. Leonard, deals with the subject of "State Government and the Medical Organization." Next to the church, the medical organization is claimed to be the most important and the most vital duty of the profession, and the most potent weapon is prevention. The organization is likened to a grand army which is engaged in investigating causes of disease, and whose base of supplies, from which it can not be severed and live, is *truth*. "We must prevent disease, for we can not always cure, and sometimes never." From the labors of the profession, have come sanitary laws and provisions before which plagues have disappeared or ceased to be mysterious terrors. The duty of the government to aid and facilitate its labors is then enforced, on the broad ground that Medical Colleges are as much a part of the government as are the common schools. The inconsistency of the law which holds the medical man to a full responsibility for his professional acts in courts of justice, and at the same time so restricts, by legal enactments, the opportunity of studying one of the most important branches of medical science, by dissection, is strongly portrayed.

Dr. Roberts Bartholow contributes an article on the "Treatment of the various forms of Consumption," that for directness, conciseness and correctness, is a model of excellence, worthy of the consideration of the profession. As a practical condensation of what is definitely established regarding the treatment of the disease, it will prove of great utility to the active practitioner.

"The Metric System." By Prof. J. F. Baldwin. These remarks are a telling argument against the adoption of the system in this country. He has shown the falsity of every claim made for it, save the one of uniformity, with certain European nations, not English speaking. He shows the impossibility of converting our weights into those of the metric system with the accuracy demanded in making prescription, and again the difficulties in its use in prescribing liquids, owing to their differences in specific gravity, and that the only result will be to make confusion worse confounded, and to largely increase the liabilities to error.

"Report of the Committee on Benevolent Institutions." By Dr. H. J. Herrick. The scope of inquiry assigned to the committee was certainly an extensive one, and if carried out systematically and with care, would have involved more labor than any one individual could well devote to it. "To report upon the sanitary condition, efficiency and success of the benovolent institutions of the State, in meeting the wants for which they were created."

The hospitals for the insane seem to have absorbed all the attention of the committee. The causes of insanity as regards their force, and the numbers affected, are given as heredity, intemperance and masturbation. The State is called upon by legislative enactment to adopt measures to put a stop to the operation of these causes, first, by restriction as to the marriage contract, suppression of dram selling and by legalizing castration. These propositions are certainly sufficiently radical.

The suggestions regarding the arrangement of hospital buildings, cottages for the insane, the question of employment, have no special value, and are mere repetitions.

One of the most practically important suggestions was made by Dr. J. A. Murphy, of Cincinnati, in the discussion which followed the paper, and which is especially appropriate to the state of affairs now existing in the State of Ohio.

"We ought to have a committee—a standing committee—to bring our asylums out of the stinking pool of politics." * * *
"The trouble with our eleemosynary institutions to day, is, that they are cursed by politics. * * * The superintendents have too small salaries. They should have \$3,000 The salaries of the assistants are also too small. No inducement is thus held out to young men to fit themselves for places in these asylums."

Twenty-first Annual Report of the General Board of Commissioners in Lunacy for Scotland: 1879.

This Blue Book is a full and comprehensive report of the condition of the insane in Scotland. There are eighteen Royal and District, six Parochial, seven Private Asylums, and fourteen poor-houses in which lunatics are kept. On the first of January, 1879, there were in all these establishments, 7,650 insane. There were also in private dwellings, under the supervision of the Commissioners, 1,508, and in the prisons, 57; in all 9,215 insane in Scotland. Of the whole number there were in Royal and District Asylums, 4,496 pauper and 1,156 private patients. In the Parochial Asylums, 1,139 pauper patients; in the lunatic wards of poor-houses, 657 pauper patients; in private dwellings, 1,598 pauper and 110 private patients, and 57 criminal insane in the lunatic department of the general prison. From 1858 to 1879, twenty years, the increase in the Royal and District Asylums has been 3,272, in the Parochial Asylums and wards of poor-houses, 957, in the prison 31. The decrease in Private Asylums has been 543, and in Private Dwellings 296. These figures show the steady increase of the number of the insane

in Scotland, and the great preference shown by private individuals to place their friends under the more direct supervision of the State. It is a striking fact, that there should be a decrease in private asylums from 1858, from 745 to 202, or more than seventy-two per cent, and that there should be a decrease of sixteen per cent, in the number in private dwellings, notwithstanding the efforts of the Scotch Commissioners to place as many as possible of the chronic insane in families. The Commissioners, in speaking of the increase of lunacy in the last twenty years, say :

“ We have frequently pointed out that the difference in these rates of increase, (the apparent increase of lunatics above that of the population), is not necessarily due to an increasing amount of mental disease, but is probably due, in a large measure, to an increasing readiness to place patients as lunatics in establishments.”

The total number of private patients committed to asylums during the last year was 470, and of paupers 1,882. The Commissioners speak of the progress of asylum care in the larger amount of liberty accorded, the diminution of seclusion and increasing attention to occupation of patients, all of which are the progressive changes which are occurring in the management of institutions everywhere.

State Preventive Medicine. First Annual Address to the State Board of Health of Connecticut. By Dr. JOHN S. BUTLER, President of the Board.

•

This address is introductory to the work of the Board of Health, and is intended to give an idea of the scope and purposes of their labor. We can not give a better idea of the character of the address than by quoting the language of Dr. Butler :

“ Having given the accepted definition of the science of State Preventive Medicine, and a brief sketch of its rise and progress,

we are brought to the questions, What are the specific duties it prescribes? What loss has been sustained by their neglect? What has it already done? What more does it propose to do? and what are its reasonable possibilities in the future?"

The Doctor condenses the problem with which society has to grapple, in the following language:

"The relationship of pauperism, vice and crime, in its far-reaching results, is to-day the gravest and most difficult question before the friends of good government and social progress."

The previous experience of Dr. Butler, as the Superintendent of the Retreat, at Hartford, fit him for the position he occupies upon the State Board of Health. He has been accustomed to investigate disease, and the conditions in which it originates, the laws of transmission, and such etiological causes as relate to society. He has in this address marked out the boundary lines of the field in which the work of sanitary science is to be performed; has indicated the results to be aimed at, and shown the benefits which will accrue to society, the government and humanity.

Transactions of the Medical Society of the State of Tennessee, at the Forty-Sixth Annual Meeting: 1879.

This report of the proceedings of the Society, contains several articles on the subject of Yellow Fever. None of them are exhaustive treatises, but all are short and practical, and record individual experiences in treatment, and interesting facts regarding the localities and conditions favorable to the origin and spread of the disease. The report on the Roll of Honor gives the names of forty-two physicians who lost their lives while combatting the dreadful scourge. Thirteen of them were residents of Memphis, while twenty-seven were volunteers from other localities. Dr. Wise has penned

a noble tribute to the brave men to whom "duty was dearer than life, and its claims higher than all human ties."

"The annals of history offer no parallel to the grand heroism of the forty-two physicians who died in Memphis. Physicians will ever recall their names with pride, for they have been exemplars of that which is highest and best in the medical profession—they resigned everything for the sake of humanity and their chosen science. That which was mortal of them is mingling with the kindly earth, and on their graves the tender flowers of spring are blossoming. The eye of man shall never more behold them, but their memories lie deeply enshrined in the bosom of a grateful people. They gave their all, and have received a crown of deathless glory in return. Their deeds have made mankind better and happier; that which they have done shall stimulate thousands to a noble emulation. Like a ray of light coming from the far distant sun will the influence of their example travel to the remotest times and be forever a source of beneficence to the human race. No stately pile is needed to perpetuate the story of their deeds, it is engraved so deeply on the minds of men that time cannot erase it. Their memories need not the poet's verse, for all that is good in mankind sings to them a grand hymn of praise, a beautiful poem, whose rhythm is the pulsation of humanity's heart."

"Insane Drunkards." By THOMAS W. FISHER, M. D., of Boston.
Read before the Massachusetts Medical Society, June, 1879.

This paper restricts the term "Insane Drunkards" to those made insane by drink, and deals with the difficulties attending their proper disposition when they have come under cognizance of the law, because of vicious, violent or criminal conduct. After quoting extensively from various writers to sustain dipsomania as a form of insanity, he says: "It does not seem unreasonable, therefore, to suppose that drink may produce, in some cases, simply a mania for getting drunk, and nothing more." This would seem to be the Doctor's definition of dipsomania, stripped of all unnecessary verbiage, and which those who advocate like

views must accept. This looks wonderfully like a habit which has finally gained ascendancy over the individual under indulgence.

We would commend to our readers the admirable little book of Dr. Bucknill, on "Habitual Drunkenness and Insane Drunkards." He well disposes of the whole subject.

Dipsomania—As Distinguished from Ordinary Drunkenness.

By J. D. THOMPSON, M. D., Baltimore, Md. Junior Physician to the Mount Hope Retreat. [Reprinted from Transactions of Medical and Chirurgical Faculty of Maryland.]

The author divides drunkards into two distinct classes, in one of which he considers drunkenness to be a vice only, and in the other a disease. In the former class he places the ordinary drunkard upon whom "medical treatment and humanitarian efforts are thrown away." "The other class of drunkards in whom we recognize disease, and not vice, is derived from a higher order of human nature than the last." The poor drunkard has little sympathy wasted upon him, his frailty is a vice. They "have no special craving for stimulation, and could readily restrain their appetite for drink." The excuse of disease, according to the author, belongs to the more intelligent, sensitive and emotional beings, whose minds are active, and in whom we have that "peculiar nerve craving for drink."

The Physiological and Therapeutical Effects of Salicylic Acid and its Compounds. By WILLIAM OLIVER MOORE, M. D. [Reprinted from the *New York Medical Journal*, July and August, 1879].

The author begins with the chemical history of salicylic acid, following it from the first discovery in 1838, by Piria, till it was again brought to light in 1874, by Kolbé, who succeeded in so simplifying and

reducing the cost of its manufacture as to bring it within the reach of all. The medical history enters at length into the experimental uses of the acid, as an antiferment, an antiseptic and especially as an antipyretic. Upon this power of the drug, is largely founded its therapeutic value in rheumatism and typhoid fever. The statistics presented would seem to establish its position as a most important remedy in those diseases. The bibliography is quite extensive.

Chronic Spasmodic Stricture, or Urethrisms. Second Paper in Reply to Dr. H. B. Sands. By F. N. OTIS, M. D. [Reprinted from the *Hospital Gazette*, June, 1879.]

Recoveries from Mental Disease. By ISAAC RAY, M. D. Extracted from the Transactions of the College of Physicians of Philadelphia. Third series, Vol. IV.

This paper was also read before the Association of Superintendents, at the meeting held in Providence, June, 1879. Dr. Ray asserts that the diminished number of recoveries in asylums at the present time, compared with those reported a generation ago, is owing to the following causes.

Cases marked by high excitement entered our hospitals in a larger proportion to those of an opposite character fifty years ago than they do now.

Under the influences of highly civilized life, the conservative powers of the constitution have somewhat depreciated, and to that extent impaired the curability of insanity.

During the last fifty years, cerebral affections in which insanity is only an incident, have been steadily increasing, and thus diminishing the proportion of recoveries.

He further shows that the influences which have been adduced by Dr. Earle, and commented on by others, as indicated in the following conclusions are fallacious, inasmuch as:

Those qualities of temperament which lead men to unduly magnify their achievements are as common at one time as at another.

The practice of reporting cases instead of persons has not been confined to any particular period, and therefore, while it may vitiate our estimate of the curability of insanity, it can not make the proportion of recoveries larger or smaller at one period than at another.

Notes of Hospital and Private Practice. By HENRY GIBBONS, Sr., M. D.

This is a report on practical medicine, read before the California State Medical Society, and republished from the transactions of that body for the years 1878-79. The paper consists almost entirely of a statement of the therapeutic agents employed in the more serious forms of disease, which the practitioner on the Pacific coast is called upon to treat. These are phthisis, typhoid fever, malaria, rheumatism, neuralgia and diseases of the heart and arteries.

Reflex Cerebral Hyperæmia. By C. H. HUGHES, M. D. Read before the St. Louis Medical Society. [Reprinted from the *St. Louis Medical and Surgical Journal*, June, 1879.]

The author reports two cases in which cerebral hyperæmia, of a reflex character, existed from eccentric causes, and expresses his belief that many cases of insanity are thus produced in persons who inherit a neuropathic diathesis.

Remarks on Ovariectomy, with Relation of Cases and Peculiarities of Treatment. By NATHAN BOZEMAN, M. D., of New York. [Reprinted from the *Medical Record*, July and August, 1879.]

He reports a number of cases which he has treated, and details at length the surgical and therapeutic measures employed.

Ophthalmology in the Last Quarter Century. An address before the Medical Society of the State of New York. By HENRY D. NOYES, February, 1879. [Reprinted from the Transactions.]

This address gives a succinct account of the progress made in ophthalmology during the last quarter of a century. It has the merit of stating the various discoveries and advances in a manner interesting to the general reader, avoiding at the same time undue prolixity and the mere enumeration of isolated facts and names of those who have labored successfully in this field of scientific research.

The Yellow Fever Germ on Coast and Inland. A discussion on Ship and Railroad Quarantine. By HENRY FRASER CAMPBELL, M. D., Augusta, Ga. [Reprinted from the Transactions of the Medical Association of Georgia.]

In this address, Dr. Campbell takes strong grounds against the contagiousness of yellow fever, and attributes its origin to a specific germ.

An Argument made before the American Medical Association at Atlanta, Ga.: May, 1879. EDWARD S. DUNSTER, M. D.

This argument is a powerful plea made against the proposed amendment to the Code of Ethics, restricting the teaching of students of irregular or exclusive systems of medicine, aimed especially at the conduct of the Medical Department of the University of Michigan.

The Future Influence of the Johns Hopkins University on the Medical Profession of Baltimore. By JOHN VAN BIBBER, M. D.

Sanitary Pamphlets issued by the New Orleans Auxiliary Sanitary Association.

Report on Milk and Dairies in the City of New Orleans.

Domestic Sanitation. The Evil and Remedy for the Privy System of New Orleans.

Address before the Association. By JOHN H. RAUCH, M. D., President Illinois Board of Health.

An Address from the Auxiliary Sanitary Association of New Orleans to the other Cities and Towns of the Mississippi Valley.

LOCALIZATION OF CEREBRAL FUNCTIONS.

The Gazette Medicale de Paris says :

The last sessions of the "Société de Biologie" were remarkable for several communications of Prof. Brown-Séquard, which should not escape notice. The results which he announces tend, in fact, to nothing less than the overthrow of a great part of the knowledge, at present acquired, relative to the cerebral localizations, and to call into question many points which are believed to be nearly elucidated.

Having divided, in a rabbit, the right lateral half of the protuberance, he noted a complete anæsthesia of the left paw. Dividing then the posterior cords at the level of the tenth dorsal vertebra, a section which is commonly followed by a hyperæsthesia of the posterior limbs, he observed the anæsthesia to persist on the left, while the hyperæsthesia appeared on the right side. He then performed a division of all that was left of the marrow on the left side; the anæsthesia gave place to a hyperæsthesia of that side, while the insensibility was carried over to the right side. The conclusion which the learned professor draws from this interesting experiment is: in lesions of the cerebrum the anæsthesia does not depend upon the conductors, but rather upon an influence exercised from a distance upon the spinal marrow.

In another series of experiments, Prof. Brown-Séquard divided the right corpus striatum. In the majority of cases he saw, as is generally admitted, a paralysis of the two limbs on the left side. Having then divided the pons Varolii of the same side, he saw the paralysis of the left side disappear, and at the same time a paralysis of the right side occur. The long recognized opposite paralysis was thus transformed into a direct paralysis. It follows from these facts that identical results can be obtained experimentally, in regard to the sensibility and the motility, and that it is possible, by proper sections, to carry the paralysis from one side to the other.

In a third communication, Brown-Séquard reports to the society new experiments, not less extraordinary than the preceding. If in an animal, a dog for example, the motor zone, which presides over the movements of the opposite side, is exposed, one can, by a direct galvanization of that zone, easily prove the existence of those movements. If one then divides the corresponding half of

the protuberance, *the whole part, which up to this time has been considered as motoric*, he sees that the movements caused by the galvanization, instead of being diminished, are rather augmented, at least at all times when the animal is not in a state of syncope. Hemisections of the cerebral peduncle, and of the motor parts of the bulbus give analogous results, with a few exceptions. In an animal in which the right motor half of the pons Varolii was incompletely divided, the left half of the bulb was afterwards cut through, there remained no other way of communication between the two halves of the encephalon than by a small portion of the anterior longitudinal mass of fibers on the right side of the protuberance. Now, in this case, the galvanization of the motor centers at the right and at the left, caused exactly the same movements in the limbs of the side opposite to the centers. The experiment was repeated a number of times, always giving the same results.

In regard to the contre-proof, which consists in producing lesions of the motor centers, Brown-Séquard promises to give positive conclusions at some time. At present he believes himself already authorized to say that a somewhat profound lesion of these centers causes not a true paralysis, but motor disorders with alterations in the muscular sense. The exact removal of a motor center produces the same effect. Quite the contrary, when one removes the motor center, in passing around its border, in a manner without either touching or irritating the same, then the most one observes is some functional disorder in the first few minutes, but finally the pseudo paralysis itself is absolutely wanting.

It is not the first time that Brown-Séquard has placed himself in opposition to the theory of cerebral localizations, admitted, or nearly so, at least, in its most essential principles. A great number of investigations made public in the *Société de Biologie*, as well as in the *Archives de Physiologie*, show this superabundantly.

As M. Grasset remarks in his book on the localizations of cerebral diseases, the whole doctrine of Prof. Brown-Séquard is governed by two entirely new principles, viz.:

1. All the phenomena which one ascertains after limited experimental or clinical lesions of a part of the cerebrum are produced by action at a distance.

2. There are no agglomerated and circumscribed centers in the cerebrum for any function. There are certainly special cells, distinct elements, but these cells are distributed through the whole mass of the cerebrum. In other terms, there are no circumscribed, but diffuse centers.

In *Pflüger's Archiv für Physiologie*, XX-I, Prof. F. Goltz, of Strassburg, who, as is well known, adheres to the analogy between the functions of the corresponding central parts of the nervous system in lower and higher animals, presents his experience in the removal of nearly the whole of the grey cortex cerebri in a dog, after his method, by the aid of a stream of cold water. The animal showed at first neither any sensorial nor intellectual activity, neither any spontaneous movements nor any sensual perception, and hardly a trace of reflex action. A year after the operation, however, the dog moved about as usual, was capable of getting hold of objects with his fore-paws, and was fully in possession of all the muscles of his body. Yet there remained a remarkably diminished power of sensual activity, and the animal was in a demented condition. There was actual proof, that it received impressions through all the organs of sense, but the faculty of disposing of these perceptions was apparently missing. Dr. Goltz draws the conclusion from this experiment, that the grey cortex, in all its parts, is exclusively the organ for the higher psychical functions of the nervous system. He expresses himself in strong terms against the so-called localization theories, and the theories of the existence of circumscribed motor centers of any kind, in the cortical substance of the brain. One and the same part of the grey cortical substance, according to his experience and interpretation, is capable of effecting or transmitting the most different actions. With these views the learned physiologist concurs with those of Munk and approaches those of Brown-Séquard, referred to in the foregoing. It seems to be apparent, that in regard to the functions of the central nervous system, a point has been reached which promises to bring about, at an early date, a reform of all theories hitherto advanced.

The *Annales Medico-Psychologiques*, January and May, 1879, contains two interesting articles.

1. On the nature of the Muscular Disturbances in Paresis.

2. New Researches on the nature of the Paresis.

The author comes to the following conclusions:

1. There is a real enfeeblement of muscular energy in general paralysis, of the same kind as one observes in all chronic affections, and yet this enfeeblement is not well pronounced.

2. There is no constant relation between the diminution of muscular energy and the progress of the marasmus. Even in the interval of several months, during which the marasmus was markedly progressing, the dynamometer gave precisely the same results.

3. The disease called general paralysis of the insane, is at no period of its evolution, an affection of a paralytic nature. Up to the end, the patient preserves the voluntary power of contracting his muscles, and the possibility of contracting them with force.

4. The disease must be considered as a primary cerebral affection, an interstitial encephalitis.

5. It commences in the intellectual centers, which gradually become destroyed.

6. The motor centers are not destroyed as the intellectual ones, they are only accessorially irritated. The motor disturbances are also only of a secondary nature, they are not independent in their existence, they are always proportionate to the intensity of the cerebral disorders.

7. The direct cause of the muscular disorders, is the intellectual enfeeblement and the fibrillar trembling of the muscles.

8. The fibrillar trembling seems to be due to an alteration of the muscular plasm, caused likewise by the special inflammation of the cerebrum.

SUMMARY.

—Dr. Theodore Dimon, of Auburn, Physician to the State Prison, has been appointed Superintendent of the Asylum for Insane Criminals, *vice* Dr. C. F. McDonald.

—A new Insane Asylum has been established at Pueblo, Colorado, and Dr. P. R. Thombs has been elected to the superintendency. The official designation of the Institution is Colorado Insane Asylum.

—Dr. C. C. Forbes having tendered his resignation as Medical Superintendent of the Central Kentucky Lunatic Asylum, the following complimentary and very justly deserved tribute of respect and esteem to himself and accomplished wife, was paid by the Board of Commissioners at the last regular meeting, held September 1, 1879:

Resolved, That we part with sincere regret with our respected Medical Superintendent, Dr. C. C. Forbes. Some of us have been associated with him from the establishment of the Institution, and the remainder for several years, and all bear testimony to his rare ability as Superintendent and Physician of the Asylum, to his conscientious, humane and faithful discharge of all the duties devolving upon him, and to his uniform courtesy and kindness to us individually and as a board.

Resolved, That we also bear testimony to the lady-like deportment of Mrs. Forbes, and to the faithful and efficient discharge of her duties as Matron.

Resolved, That they and theirs have our best wishes for their future prosperity, wherever their lot may be cast.

Resolved, That these resolutions be spread upon the record of the board, published in the *Courier-Journal* and *Louisville Commercial*, and a copy be furnished Dr. Forbes by the Secretary.

—We welcome the new journal, of which we present the prospectus, to the field in which we have so long labored and bespeak for it the support and encouragement of our readers, to many of whom, the editor, Dr. C. H. Hughes, has been long and favorably known.

About the first of January, prox., the initial number of the *Alienist and Neurologist*, a quarterly journal of practical and scientific psychiatry and neurology, will issue. Terms \$5.00 per annum in advance. The journal, while not omitting to give a brief record of general medical progress, will be especially devoted to the promulgation of sound teaching respecting the nature and treatment of all neuro-psychic and nervous diseases, the proper management and care of the insane, (both within and without asylums), and the elucidation of such surgical affections as largely implicate the nervous system. Its aim will be to bring all real progress in psychiatry and neurology, concisely, prominently and satisfactorily before the general profession. While savants will contribute to its pages, their contributions will be mainly such as practicing physicians can not ignore. Due prominence will be given to electrology; while alcoholism, meconism, chloralism, and the proper management and treatment of inebriety, etc., will likewise be considered, as within the legitimate province of the *Alienist and Neurologist*. The journal will be conducted upon the idea that psychiatry and neurology, like the study of the vascular system, are essential parts of the trunk, rather than special branches of general medicine; and in such manner as to be indispensable to the general practitioner, because it will aim to give him enlightened practical views concerning these most difficult departments of his science and art. The medico-legal aspect of such subjects as come within the scope of the *Alienist and Neurologist* will receive due consideration, making it invaluable to the student of medical jurisprudence. Substantial encouragement has already been received from many sources, and an abundance of co-operation has been promised. Only matter of real merit and value, and succinctly presented, will be admitted to its columns.

Address all communications to C. H. HUGHES, M. D.,
1313 Chouteau Avenue, St. Louis, Mo.

September 1, 1879.

AMERICAN JOURNAL OF INSANITY, FOR JANUARY, 1880.

RESPONSIBILITY OF ASYLUM SUPERINTENDENTS.

We print in this number, *in extenso*, the decision of Judge Shipman, of the Circuit Court, of the State of Michigan, in the case of *Newcomer vs. Van Deusen*, which has recently been terminated. It is certainly one of great interest to all members of the profession, as bringing up the test question of the legal liability of medical officers of the State, to any prosecutor who thinks he can convict them of a professional error of judgment. This decision may, perhaps, indicate some advance in the application of the law to such questions, and is really a considerable contribution to the science of Medical Jurisprudence, which must attract the attention of, and be quite welcome to the whole specialty.

The case is that of a woman, Mrs. Nancy J. Newcomer, of considerable experience in worldly mutations, who had been divorced from one husband, and had ceased to live with her second, after which she had studied medicine and become a homœopathic physician; had lost her eldest daughter by sudden death, and had also had a severe fall from a railroad train, becoming, as might not unreasonably be expected, gradually strange in her conduct, until her relations saw that she was unmistakably insane, and thereupon took the usual steps to place her in the asylum at Kalamazoo, of which Dr.

E. H. Van Deusen at that time was Superintendent. She was detained there from October 1, 1874, and taken away by her friends in August, 1875, improved, but not recovered. She afterwards brought suit against Dr. Van Deusen for false imprisonment and illegal detention, including also, we believe, charges of maltreatment, laying her damages at \$40,000. The cause was tried in the Circuit Court, the jury giving their verdict for the plaintiff, and awarding \$6,000 damages. The case was appealed to the Supreme Court, which reversed the judgment of the lower court for certain errors in the procedure, and remanded the case to the Circuit Court for a new trial. However, on the main question raised in the Supreme Court, *i. e.*, whether "good faith," in the action of receiving and detaining a patient, under the full belief that he is insane and requires the treatment of the institution, would be a sufficient *defense* to such a prosecution as this, the court was equally divided, and very naturally the counsel for the plaintiff claimed that the lower court was justified in its position that *good faith* was no defense; that the want of "due diligence," (extraordinary diligence?) was the same as "negligence."

The Supreme Court agreed as to certain defects in the proceedings below, which made it necessary to grant a new trial, but were divided on the question whether a person might be arrested anywhere by his friends, on the claim that such person was insane, and taken to an asylum, without public or judicial action, and detained there on the judgment or discretion of the superintendent, from personal examination of the patient, and the facts of previous history submitted by the parties bringing such patient. The court in this case, of course, had no reference to the liability or peril of the parties making such arrest and taking the patient to

the asylum, but confined itself to the question of the responsibility of the superintendent in thus receiving and detaining such patient at the request of his friends.

The opinion of two of the four judges is very decided in favor of the superintendent's exemption from liability in such a case, interpreting the law of Michigan to be, that persons having means for their own support may be received simply upon the "request" of their friends, without the order or certificate of any public official. We give the main question as stated by the two judges, Marston and Graves, in this case, and a salient portion of their argument.

"There are many instances where, without a judgment or process of a court, an act may be done, but at the peril of the person acting, who, when called to account therefor, assumes the burthen of proving that he was justified in what he did, and the same rule might apply in this class of cases where the friends or relatives act upon their own responsibility. But where a person is brought to the asylum by, or at the request of his relatives, would the superintendent thereof, who, after a careful investigation of the patient, in good faith, and a belief based thereon, that, he was, in fact, insane, act at his peril in receiving, detaining and treating him thereafter? I am clearly of the opinion that he would not be liable, under such circumstances, even although it should be made to appear that the person received was not insane. The good faith of the superintendent must be to him a protection, as it is at least questionable whether in very many cases he can have any other. The judgment of a court sentencing a person to imprisonment as a punishment for an offense of which he has been found guilty, and the execution issued thereon, prescribe a definite period, at the expiration of which, but not before, the person is entitled to his liberty, and no reformation of character which he may undergo in the meantime, will

entitle him to his liberty one day sooner, except under some special statutory provision; and the person under whose care he is placed can, under no circumstances, be held liable for false imprisonment in detaining him the full period of time mentioned in the warrant of commitment. Not so, however, is the case of a person sent to the insane asylum. If sent there by the Superintendents of the Poor, or by the Probate Judge, no definite time is by them fixed for his detention. He is to be received to remain there "until he shall be restored to soundness of mind," and not a single day or hour longer can he be detained against his will. But who shall determine the fact that he has been restored to soundness of mind? Where the patient is convalescent it may be a matter of considerable nicety, and about which competent persons might differ in opinion, as to the exact time when soundness was restored. During such a period, does the superintendent, acting in good faith, with a full knowledge of the condition of the patient, and firmly believing that soundness of mind is not fully restored, act at his peril in detaining him? Or, in a case where the Probate Judge has had an examination, and a jury has determined that the person is insane, and he is sent to the asylum as an indigent insane person, under the certificate of the Probate Judge, but the superintendent, on his arrival, believes, after an examination, that the person is not and has not been insane, would he be justified in receiving and retaining him under such circumstances? He would have the verdict of a jury, rendered, perhaps, the very same day, declaring the person insane, who he believed was not. Surely that might seem a protection, but would it be? Must not the superintendent, in all these cases, act in accordance with his own belief? Can he be given any other guide? And if he errs, which is possible, shall he for such error of judgment, notwithstanding the fact that his motives were pure and praiseworthy, be held liable in damages therefor? If so, then he acts in a most difficult and dangerous position. He acts not alone at the peril of the person being insane in fact, or that soundness of mind has not been fully restored, but

that a jury will so find upon a trial had, months or even years afterward, when the person is acknowledged by all to be no longer insane—when all the facts and circumstances which were daily seen by the superintendent and his assistants, and which satisfied him and them of insanity at the time, can no longer be seen or presented to the jury with all their force, while the supposed sufferings of the patient while there, proper if insane, but not if sane, will be presented in strong contrast to arouse their sympathies. Under such circumstances we might find the superintendent of the State Insane Asylum held responsible in damages for detaining a person, who was insane in fact, but who a jury, upon an investigation made long afterwards, should determine had not been so. Things equally unlikely and improbable have happened.

This would not, however, be the full extent of the dangers he would run. He is the head of the institution, and has "the direction and control of all persons therein," and it was made his special duty to "daily ascertain the condition of all the patients, and prescribe their treatment." Now, no matter how clearly his duties may have been prescribed, yet, owing to the large number of patients in such an institution, a personal examination of them daily, to ascertain their condition and prescribe for their treatment, would be beyond the power of any one man to perform. Much of this labor must, from the very necessities which exist, be performed by others, whom the superintendent would not have the sole power of appointing and discharging, and yet for their errors and mistakes of judgment, he must be held responsible. Such an extended liability as is claimed in this case, would operate as a perpetual bar to any person possessing the necessary qualifications for the position accepting the same, and would soon leave the institution at the mercy of men of no character, responsibility or experience. Under such a rule, the legislature with all its power could not carry out the constitutional injunction to foster such institutions for the benefit of those inhabitants who are insane. Under the view taken, will the liberty of the

citizens be sufficiently protected? I think so. The Michigan Asylum for the Insane is not a private, but a public institution. Its Medical Superintendent and his assistants do not receive fees or a salary in any way dependent upon the number of inmates. They receive a fixed salary, paid out of the State treasury, so that they can have no motive other than a proper one in an increase in the number of inmates in the Institution; and should any one of them, for corrupt purposes, receive or attempt to detain any person improperly, it would be promptly discovered by some of the officers, unless all were alike corrupt, and interested in his detention, something which is very unlikely to occur. Besides this, the statute provides for the appointment of trustees by the governor, by and with the advice and consent of the senate, to whom are given the government and sole and exclusive control of the asylum. They are to see that its design is carried into effect, and everything done faithfully, according to the requirements of the Legislature and the by-laws and rules of the institution. They fix the salaries and allowances of the officers; they establish by-laws; they are to ordain and enforce a suitable system of rules and regulations for the government, discipline and management of the asylum. They are to keep a record of their doings open at all times to the inspection of the governor, and of all persons whom he or either house of the Legislature may appoint to examine the same. It is their duty to maintain an effective inspection of the asylum. A committee of their number, for such purpose, is required to visit it every month, a majority of the board once every quarter, and the whole board once a year. They are to keep a record of the date of each visit, and the condition of the house and patients, and the result of their inspections is to be submitted to the Legislature, in January of each alternate year. It is true, notwithstanding these and all other safeguards which have or may be thrown around this institution, that abuses may exist and pass unnoticed. So it is, however, with all human institutions—the power given them may be abused. At some point there must be a

presumption that official duties will be properly performed, and I do not see why we may not presume that these officers and trustees will honorably and conscientiously perform their several duties, and prevent this, one of the most charitable and beneficent of our great State institutions, from becoming a prison, or aught else than that for which it was designed. No matter what safeguards may be provided as to a determination of the question of insanity, in the first instance, before the patient can be received, and which might exempt the superintendent from all liability in receiving him, the question as to his detention must still be left open, unless the good faith of the superintendent will protect him in detaining a patient until soundness of mind, in his opinion, be restored. I can imagine no possible way in which he can be guarded against actions brought and damages recovered by persons claiming that they have been detained longer than was necessary for their complete restoration. If good faith would be a defense in such a case, I can discover no good reason why it should not in all others. No valid reason, in my opinion, exists for any such distinction. Neither in the receiving nor in the detention of an insane person can his consent be required. Consent would imply sanity. The consent of an insane person, incapable in law of consenting, can not be required as a condition precedent in either event. To hold the superintendent liable for an error in judgment, or still worse, where he was clearly right, although a jury might be of a contrary opinion, would, in my opinion, entirely destroy the usefulness of this institution, by preventing anyone, possessing the necessary qualifications, from accepting the position. Patients convalescent, but before soundness of mind was fully restored, would be discharged only to suffer a relapse. Continued complaints would be made that patients were treated as insane, who were not, in fact; or that they were being detained longer than they should be, and suits innumerable, harassing to the superintendent, with a tendency to bring the institution into disrepute, and impair its usefulness, would follow, with a result easily foreseen. In my

opinion the key to the entire difficulty must be found in the good faith of the superintendent. This implies and requires a careful, conscientious discharge of all the various duties assigned him under the laws, rules and regulations of the institution. If all this he has faithfully observed he should not be held liable to respond in damages for error of judgment or mistake. If, however, he acts in a careless and negligent manner, indifferent as to whom he receives or detains, or as to the treatment they receive, or corruptly, in improperly receiving or unduly detaining any person brought there, for all such he should be held to a strict and rigid responsibility. This, in connection with the safeguard already referred to, will, in my opinion, reduce the dangers of abuse to the lowest possible degree. It will tend to increase, and not impair the usefulness of the asylum. While a difference of opinion exists among members of this court as to some of the above propositions, yet all are agreed that the court erred upon the trial, and that for the reasons hereinafter stated there must be a new trial."

The third member of the court, Judge Cooley, gave an opinion somewhat less luminous, admitting that it was not always essential to have a judicial determination before sending a person to an asylum, but that prudence dictates it, where there can be any doubt as to the actual fact of insanity, or where the person is harmless or not dangerous. He dwelt upon the liability to abuse of such a power, though he admitted the system had so far worked well; but in view of the fact that the door of the medical profession is thrown wide open to persons of every degree of knowledge or ignorance, he thought it was too great a power to be entrusted even to a professional man; for so subtle are the distinctions on this subject, that it was not impossible for a patient, brought to an asylum, by cunning management to have his captor detained there instead of

himself! The judge admitted that "during all the time Mrs. Newcomer was in the Asylum, Dr. Van Deusen had reason to believe that he was detaining her there in accordance with the desire of her family, and because she was insane," and that "if she was insane in fact, he was justified in so detaining her for her own benefit, and with a view to medical treatment, under the facts as they were made known to him." He could not, however, agree with the defense, that even if she were *sane*, and he acted in good faith, he would not be responsible, for *somebody* must be responsible. He would not be responsible for what *others* had done, but as this office, in his opinion, is partly ministerial and partly judicial, and the judicial function comes in play at a later period, on the question of duration of detention, and not at the outset in consigning a patient to the wards, so, as a sheriff is liable for a mistake by ignorance or malice, a superintendent also must bear the consequences when another has suffered from his ignorance or malice, though "exempt when he has acted in good faith."

This distinction is exceedingly fine drawn; but perhaps what it amounts to is only what the two judges, Marston and Graves, had laid down at the close of their opinion, that when a person has acted in a careless, negligent or corrupt manner, he may be held.

The fourth judge, Hon. J. V. Campbell, agreed with Judge Cooley on the main legal questions, and added that under the law of Michigan, which made no provision as to the reception of private patients, the superintendents must act only on their Common Law responsibility. He simply argued that there *should be* a summary procedure for determining the fact of insanity, if sane people are not to be deprived of legal protection. There must be actual ascertained insanity, or else *consent*, to justify seclusion. Dr. Van Deusen

was justified if Mrs. Newcomer was *insane*, or made no objection. If she was sane he was not responsible for the acts of her relatives, or anything beyond his own acts, and therefore should not have been treated as involved with them. Judge Campbell's opinion concluded as follows :

"The rules and regulations were all shown beyond dispute to be proper, and if any other person in the asylum, without his procurement, did acts of an improper character, he can not be bound to respond for them. There was no evidence legally tending to show conspiracy or bad faith in plaintiff in error, and the testimony of insanity was very strong. And I can not avoid the belief that unless the jury had been instructed that Mrs. Newcomer could not be confined unless dangerous, as well as insane, no verdict could have been rendered against Dr. Van Deusen."

On the new trial, Judge Shipman allowed the plaintiff to put in all her evidence, giving all opportunity to prove negligence, lack of good faith, abuse of his office, malice, conspiracy or what not, which it appears she utterly failed to do, the evidence of her insanity, and of Dr. Van Deusen's good faith in all his official action in the matter, being simply overwhelming. And so, before the defense completed the examination of their witnesses, the judge abruptly terminated the proceedings, declared that there was nothing to go to the jury, and charged the jury on the simple question of law, to find a verdict for the defendant. The opinion given with this charge is what we print, and we prefer to give it in full, to avoid the possible imputation of mistake or inadequacy, which a bare abstract or analysis might, in the opinion of some, incur. It will be seen that on the question that divided the Supreme Court, Judge Shipman cites the opinions only of those who were in the negative, and finds therein sufficient statements and ad-

missions of legal principles to warrant him in undertaking to give the casting vote, (so to speak), which should determine the scale in this case. The fact that the medical officer alone can determine the question of *improvement* or *recovery* after the patient has been committed, with all due forms of law, does, as Judge Shipman declares, "concede the whole controversy," and proves that the State officer does, so far forth, act in a *judicial*, not a mere ministerial capacity, and as so doing, is entitled to the protection of his privilege. It is nowhere denied that an officer acting in a *quasi-judicial* character, whose function is partly ministerial and partly judicial, may be liable for transcending his official duty, or for any abuse of his power; but where, as in this case, no malice or *mala fides* can be positively proved, the officer who acts as a professional man, according to the best of his judgment, is clearly entitled to the protection of the courts. The able Judge remarks that in Michigan there is no provision for any other judicial investigation into a case of insanity before it comes into the hands of a medical superintendent of the asylum. There is only the action of the relatives, the physicians and the superintendent of the poor. If that be the case we can only add that it renders more necessary an exact compliance with all the requirements of law in the preparation of papers, and the proceedings preliminary to admission. A technicality was not allowed to overrule justice in this case, but it is better to be even technically right.

Although we have said enough to introduce the judgment rendered by Judge Shipman, we must take advantage of this opportunity to reiterate the claims that we have before made for the superiority of our New York legislation on this subject, as removing all possible question of the security of the rights of the

citizen. As will have been seen, all that is absolutely necessary to make the opinions of the four Supreme Court Judges, in this case, perfectly harmonize, is the introduction of some *official* action in *every* case of a person held for insanity, *previous* to his commitment to an asylum. The whole difficulty in the case of Mrs. Newcomer, and the whole evil in the system as criticised by Judge Cooley, would have been obviated and cured, had the recent statutes of the State of New York on this subject been incorporated into the law of Michigan. In Michigan, as in England, for private patients, no legal recognition seems to be necessary—no order of any public officer, no medical certificate, nothing but a written “request,” signed by a relative, friend or other person. All the remarks of the two dissenting judges, about liability to abuses, from incompetency or ignorance, from sordid or corrupt motives, placing the liberty of even sane persons in jeopardy, indicate dangers and defects which are not to be obviated by hedging about superintendents, or holding them to a degree of responsibility which would make their office impracticable. They simply connote defects and shortcomings in the law of commitment, which are fully met and remedied by such provisions as those in the law of New York, which we here give :

[Laws of New York, Chap. 446, Tit. I, Art. I, §§ 1, 2, 3.]

SECTION 1. No person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home or retreat for the care and treatment of the insane, except upon the certificate of two physicians, under oath, setting forth the insanity of such person. But no person shall be held in confinement in any such asylum for more than five days, unless within that time such certificate be approved by a judge or justice of a court record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving

of such certificate, and said judge or justice may, in his discretion, call a jury in each case to determine the question of lunacy.

§ 2. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to an asylum, unless said physician be of reputable character, a graduate of some incorporated medical college, a permanent resident of the State, and shall have been in the actual practice of his profession for at least three years, and such qualifications shall be certified to by a judge of any court of record. No certificate of insanity shall be made except after a personal examination of the party alleged to be insane, and according to forms prescribed by the State Commissioner in Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment.

§ 3. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of committing him to an asylum, of which said physician is either the superintendent, proprietor, an officer, or a regular professional attendant therein.

In these provisions it will be seen that the privilege and responsibility of the physician even is not "thrown wide open to everybody," but is restricted to such as can make good their professional character, are actual permanent residents, and have had at least three years' experience. It is hardly possible to conceive a surer or more complete safeguard for individual rights than we have here. It is certainly equal to anything provided for a person arrested on a criminal charge.

While contemplating the circumstances and issues of this trial, it is almost amusing to recall the rather loud and confident tone indulged in by certain persons, who boldly contrast the English system with ours, claiming great advantages and superiority in all respects for the former, hoping to impose upon the general public on the old principle of *omne ignotum pro mirifico*. We have seen what is the English practice in regard to the commitment of private patients, nearly identical with that of Michigan, as described in the case above, while pauper lunatics are sent on the order of a parochial

officer, accompanied by the certificate of *one* physician, with a statement or "history" of the case. We venture to say there is no comparison between the English and New York systems, as to the security and certainty obtained under the latter, as will be seen by examining the sections of the law of New York quoted above.

But without further preface we proceed to give the judgment rendered in this case, by Judge Shipman, of the Circuit Court, as his charge to the jury.

DECISION AND CHARGE.

Nancy J. Newcomer vs. Edwin H. Van Deusen.— "This action is brought by Mrs. Newcomer against the defendant to recover damages for an alleged false imprisonment of her in the Michigan Asylum for the Insane, at Kalamazoo, of which he was the Medical Superintendent. The cause has been once tried in the Circuit Court, and a verdict and judgment rendered against the defendant. This judgment was reversed by the Supreme Court, for various errors assigned to the proceedings, upon the trial by the defendant, and the cause remanded to this court for another trial, before a jury. Upon the questions arising, with one exception, all the judges of that court concurred, but upon the main question they were equally divided.

The facts briefly stated are these: October 1st, 1874, the plaintiff was sent to the Michigan Asylum for the Insane, at Kalamazoo, by her relatives, and delivered into the charge of the defendant, who was then the Medical Superintendent of the institution, as a patient for treatment in the asylum. She was a woman of considerable experience in life and in business matters. She had lived in several different States, and at times had carried on business for herself. She was also a physician, and to a certain extent had practiced as such. Her acquaintance with people and the ways of the world was larger than the average. She had been twice married, but obtained a divorce from her first husband and with the second she did not and had not

lived for some time previous to her going to the asylum. Although not then legally separated, they were, in fact, no more than friends to each other, he assuming and she conceding him none of the rights of a husband. By mutual consent he had nothing to do with her affairs. He has since obtained a divorce from her. For several months prior to July, 1874, she had resided in Toledo, Ohio, supporting herself, but during that summer she left the place and came to Calhoun county, in this State, where her daughter, mother, and two married sisters resided. She also had other acquaintances in that county and elsewhere in that vicinity. She remained in that part of the State until sent to the asylum by these relatives, none of the family, including her own daughter, objecting, while all knew of it, and her sister afterwards filled out answers to questions upon a blank provided by the authorities at the asylum, purporting to give the plaintiff's personal and family history, which was forwarded to the asylum. This instrument contained nothing to excite a suspicion that she was not insane, but on the contrary, presented corroborative evidence that she might be. She was received into the institution by the defendant, in the usual way, as a patient for treatment therein, and for no other purpose, and there she remained, to the knowledge, and with the consent and approval of her relatives, until discharged as convalescent, and taken home by them in August, 1875. She was taken there in the day-time, and by the usual public conveyances, without any attempt at concealment, and not under circumstances which would in any way invite or excite inquiry in those connected with the institution, nor was the conduct of her relatives, friends or others afterwards such as to direct the defendant's attention to her specially or to indicate that she was not a person requiring and having a right to receive treatment at the asylum.

The Michigan Asylum for the Insane is a hospital, founded by the Legislature of the State, in obedience to an express provision of the constitution itself, having a Board of Trustees to manage its concerns. The Trustees are required by law to appoint a medical and

assistant medical superintendent for the asylum; two assistant physicians and matron. It has about one hundred and fifty attendants and assistants and over four hundred and fifty patients. The various departments are under the immediate charge of supervisors, who see to the administration of medicines, and communicate with the physicians respecting the wants and condition of the patients. The matron has the general charge of the female inmates. Besides these it has various other officers connected with it, such as treasurer, steward and the like. The duties of the medical superintendent are quite extensive. He has the general charge of the buildings, grounds and farm, together with the furniture, fixtures and stock of the institution. He is the business manager of the entire concern and its chief executive officer, overseeing everything connected with the establishment, including the keeping of its accounts. Of necessity a very large portion of his time and attention must be devoted to other matters than the immediate care of patients, this work being entrusted largely to assistants. All admit that these officers are not, in any legal sense, his agents or servants, and that he is in no way responsible for their acts, except so far as he participates in them by directing them to be done. At the threshold of the case arises a question as to the extent of his responsibility for the seclusion of Mrs. Newcomer in the asylum, admitting him to be liable at all. The defendant received, examined and admitted her into the building, but that is all he did. He had no more to do about the immediate care, custody or treatment of her afterwards than with the acts of the engineer in heating the building. Much of the time she was there he was absent, attending to duties elsewhere, and some of the time not even in the State. Can it be said that the one act he did would necessarily, or even probably result in the plaintiff's being detained until August, 1875? The statute requires the patient's condition, as to sanity, to be ascertained daily, so that his determination, the first day, upon that fact, only determines what her treatment shall be until she should be again examined. Was not her detention after the

first day, in consequence of conclusions as to her mental condition arrived at by other officers appointed by law for that purpose, and with which he actually had nothing to do, since, if these officers concluded she was sane, either the second, or upon any subsequent day, she would then have been discharged? If Dr. Van Deusen be only liable for his own acts could he be held liable after that one act had spent its force, which it did the first day? Was not her detention afterwards the result of other agencies in which he took no part? Would he be more responsible for this part of her treatment, by his assistants, than for the result of medicines they might have prescribed, or other acts of theirs in regard to her, and with which it is admitted he can not be charged unless he took part in them?

The main question in the case, however, is deeper than this. All the damages which are claimed by Mrs. Newcomer, arose from acts which were done by the defendant, as medical superintendent of the asylum, and while acting officially as such within the line or limit of his duty, or by officers acting under him, as provided by the laws of the State. His skill as a physician, and experience in the treatment of the insane, appear in the proofs, and are denied by none, nor are the qualifications of any of his assistants open to question. There is nothing in the case or its surroundings to raise the slightest suspicion that Dr. Van Deusen or his assistants, upon whom the care and treatment of Mrs. Newcomer devolved during the time she remained in the asylum, were or could have been influenced by any improper motives in secluding or keeping her within the institution.

This protracted and careful trial has developed no new evidence against the defendant upon the question which divided the Supreme Court, and hence the fact must be held now as decided by them, upon the testimony produced on the former trial, viz.: that Dr. Van Deusen and his assistants believed the plaintiff insane when she was in the asylum, and that there is nothing legally tending to show that he did not act in good faith, and as became his office, in receiving her for treatment

within the institution. Upon this fact arises the legal question which vexed the Supreme Court, and which is stated in one of the opinions rendered, as follows: "Where a person is brought to the asylum by or at the request of his relatives, would the superintendent, who after a careful investigation and examination of the patient, in good faith, and a belief based thereon, that he was in fact insane, act at his peril in receiving, detaining and treating him thereafter?" The plaintiff claims she was not insane when taken there, and insists that this fact, (upon which it may be said there is evidence both ways), should be left to the jury, and that the belief and good faith of the defendant constitute no defense to the action. If, however, the question of law left unanswered by the Supreme Court, should be determined against her, there is nothing for the jury to pass upon. This question must settle the case.

Little need or can be added to the elaborate reasoning of the two judges who hold that this would be a defense to the action, but some of the opposing positions deserve notice.

The opposing opinion states: "But I think he (the medical superintendent) is to be classed with the public officers of the State, and is entitled to all the advantages and protections which the law accords to officers performing analogous duties. The legal protection which the law accords to officers must depend very largely upon the nature of their duties, whether they are ministerial merely, or are discretionary or judicial. If they are ministerial, the officer has a line of duty clearly marked out for him and he must follow it at his peril; if they are judicial in the full sense, the very nature of the authority is inconsistent with civil responsibility for mistakes in judgment. There are, however, a class of duties which in a qualified sense are judicial, and in another sense are ministerial, where the officer is required to do certain acts, with limited powers to pass his own judgment upon the rights of others. In such cases, the officer has been held exempt from responsibility where he has acted in good faith, however great his error, but liable where another has suffered from his ignorance or malice."

The law, thus fully and well stated, is sufficient to enable us to find the true rule in this case. Looking now at the statute and all the opinions, we find three admitted cases or classes of persons, (aside from those imprisoned), who are entitled to the benefits of, and may be sent to the asylum. First, the pauper insane who are sent by the superintendents of the poor or supervisors of towns; second, the indigent insane not paupers, who are sent by the probate judge, after an examination with or without a jury, in his discretion; and third, those who are sent to the asylum by their friends, who pay their bills. The case under consideration comes within the third class, but the duty of the medical superintendent, from which alone springs his liability, is the same towards the patients in each class so far as it can be found written in the law. His responsibility can not be different when dealing with one class than with the other unless the duties required of him are different. Where the pauper insane were sent no kind of a judicial investigation in advance as to their sanity was had in 1874, and where the indigent insane were sent by the judge of probate, but a partial inquiry was made, the investigation being almost wholly directed to the indigence of the patient. But when received at the asylum, these were treated precisely the same as when sent by their friends. All admit that a time may come when patients of either of the three classes are entitled to their discharge, and this is arrived at in the same way and depends upon the same circumstances in each class. In determining when this time has arrived, the superintendent acts judicially. The proposition is stated in the opinion referred to as follows: "There are cases in which the powers which the superintendent necessarily exercises seem to be judicial. I allude particularly to the case of patients received when insane, and improved and supposed to be cured by the treatment they have received. The time comes when such persons are entitled to their discharge, but exactly when it has arrived, the superintendent must in the first instance decide. Should he maliciously continue the confinement after a

cure had been effected, he could rightfully be held responsible; but if through error of judgment, he failed to discharge the patient, he might with great justice claim the benefit of the rule which under corresponding circumstances protects officers who exercise authority of a *quasi* judicial nature. But under such circumstances the superintendent is dealing with a case in which insanity having unquestionably existed, a presumption of its continued existence favors his action."

This would seem to concede the whole controversy, and establish the position claimed by the defendant, for if the superintendent is to decide how long the patient is to be detained, it necessarily follows that he is to determine whether he is to be detained at all or not. If he is to decide whether the patient is to be kept a year, a month, or a week, he must also of necessity determine whether he is to be detained an hour or a moment, for these are included in the weeks and years. If the superintendent decides the patient sane when presented, he must then and there instantly discharge him, because that conclusion determines and settles how long a time he can detain him. The presumption of a continuance of the insanity for which he was sent there, is but evidence of the fact to be determined, and upon which it is claimed his responsibility depends, and not the fact itself. The patient may have been insane when the officers or the judge of probate acted upon the matter, but entirely sane upon reaching the asylum. The determination of the superintendent is, however, always open to review upon a proper proceeding, instituted in a court for that purpose.

Among the objections urged against allowing the superintendent to pass upon the question of the patient's insanity when sent by his friends, are the absence of notice and opportunity given him or his friends to produce evidence to show that he is not insane, and the lack of publicity attending the proceedings; yet the proceedings of the probate judge, as well as of the other officers referred to, and upon whose certificate it is said the superintendent may rely for his protection when sent by them, are open to the same objections in

a still greater degree. In the case of the indigent insane who are not paupers, the procedure has little of the semblance of legal investigations in courts. The application may be made on behalf of the person alleged to be insane, by a stranger. No citation or notice of any kind is provided for, whereby he or his friends can be advised of the matter. No provision is made for any kind of hearing in their behalf, by counsel or witnesses, but the probate judge himself calls "two respectable physicians and other credible witnesses," and with the assistance of the prosecuting attorney, conducts the entire investigation. There is nothing in the law requiring the insane person even to be present, nor does it contain a provision whereby his presence can be secured; and from the fact not only that no notice is given him, but that the physicians simply file sworn certificates, it would seem that he was not by counsel or friend expected to cross-examine these witnesses, for if they were to be examined orally, certificates would not answer the purpose. When the investigation is closed, and the probate judge deems the person indigent and also insane, he still has no control over his person. He does not direct him to be sent to the asylum, nor can he issue any writ or process upon which an officer can take him there. That duty is still left for his friends to do. The expressed provisions of this law may all be complied with, and neither the person most affected by them or his friends know anything about the matter, while as the law was when Mrs. Newcomer was in the asylum, the pauper insane were sent upon the mere order of the superintendents of the poor or of the supervisor. No notice was required, and no pretense of an investigation was had, and the whole business might have been done in a closed room, the officers acting having no qualifications fitting them for the delicate duties assigned them.

If weighed upon their merits, no one will claim but that an examination by the medical superintendent of the asylum, skilled as he is, and must be in the treatment of the insane, and his conclusion therefrom, is entitled to much the greater consideration. Indeed,

without the aid of an artificial presumption, the proceedings of the judge of probate and the other officers mentioned, would be of little if any weight as evidence of the patient's actual mental condition.

As a rule, courts can not write a record that will bind an insane person at all. It is only when a man is sane that it can enter a judgment that he is insane, which will establish the fact against him conclusively. Proceedings in regard to this class can not be conducted as in other cases where wrongs are righted or punished. They are necessarily out of the usual course of things. The emergency is too urgent, the necessity for action too immediate and pressing to admit of notice being given, and the delays consequent upon judicial proceedings. If the patient is to be treated at all successfully, it must be done promptly; the earlier the better. The progress of the disease can not be stayed by an order of court to await its conclusion as to whether he is mentally disordered. Nor can a court weigh the best evidence of the fact sought to be proven, viz: the person himself. It can take the opinions of others about him and weigh those opinions, but the verification of the fact under investigation, although before its bar, it can neither understand nor judge of. The matter to be determined is not a legal, but a medical question. It is not whether the person is a law breaker, but whether he is a fit patient to be treated in the asylum. It is admitted that the asylum is not in any sense a prison or bedlam, but a retreat for proper instruction and treatment, and if a court can in advance determine whether this part of the treatment is proper, it can as well prescribe whether and what other treatment is necessary, and the medicines the patient shall be given while there.

But however desirable an inquisition in a court upon this point might be, it is sufficient to say there is no way or method known whereby this can be had in cases like the present one. When it is said that where a patient is presented by his friends for treatment at the asylum, and his sanity "is open to possible question, prudence should dictate a judicial investigation," the fact that no such investigation is possible seems to

have been overlooked. Our laws have made no provision for action by any public officer or court, in cases of this kind and class, and to require the superintendent to take such a step, and have an inquisition in advance to determine the sanity or insanity of the patient before receiving him into the asylum, is to require of him an impossibility, and if this direction were followed it would close the doors of that institution to the applicant forever.

Another reason urged against leaving the decision of the patient's sanity to physicians, while admitting the high character and learning of a large proportion of them, is stated as follows: "We can not for a moment shut out from view the fact that the law throws wide open the doors of that profession, and that the ignorant jostle the learned in entering it, the unworthy have equal rights with the high-minded and humane, and it is not uncommon that the most unfit succeed for a long period in imposing upon the public. By no means known to the existing laws can it be rendered reasonably certain that, in the absence of public investigation, questions of insanity will be considered by competent persons, and mistakes guarded against by those who are fit to judge." But if this test were applied to the magistrates in the State, it would empty many of their chairs. We confide to them, however, the protection and disposition of our property, our liberty, and even our lives, but they are not always fit to judge upon the matters they are authorized to decide. No qualification or knowledge of the duties they are to perform is made a pre-requisite, or deemed necessary to fit them for the places they hold. No magistrate need know anything of the law he is to administer. There is no statute requiring the judge of any court in this State to be a lawyer. Even as to judges of the supreme court no such test exists. The law throws wide open its doors to all aspirants for judicial positions—the way is free for all—and thus far the State has suffered no injury therefrom, while the individual rights of the citizen have, as a rule, been entirely secure and safe under the administration of officers so elected. Experience, there-

fore, does not teach us that the danger from this source is so great as to cause serious apprehension, while the statute itself fully answers the entire argument based upon this supposed danger by providing that the medical superintendent of the asylum "shall be a *well educated physician, experienced in the treatment of the insane.*" The door is thus completely closed to that class of medical pretenders from whom this apprehension of danger arises. The law requires a higher and more severe standard of ability and fitness for the place in this than in any other State office.

But it is said that where a sane person is confined, by reason of an error in judgment of the superintendent, "it can not be that no one is responsible. The law of no free country can tolerate a condition of things under which a person innocent of crime, and threatening no injury to himself or others, can be restrained of his liberty, and no person be responsible for the injury he suffers." Yet it is certainly true that such things do exist, where no one is responsible for the injury sustained. It is a matter of common knowledge that persons are sent to jails and prisons, and confined there for months and years, who are innocent of wrong, actual or threatened. Sometimes this is done through the ignorance of magistrates or of juries, but very rarely through their wantonness or malice. Behind the doors of our prisons to-day languish men innocent of crime, whom no human power can liberate until the term of their unjust imprisonment has expired. The law holds them in its inexorable grasp, and will not listen to the proofs of their innocence. A false record declares them guilty, and this is conclusive upon them, but those who wrote the falsehood are not, nor is anyone responsible for the injury sustained, so long as they acted in good faith.

These things, however, are a necessary incident to the administration of the laws, and will continue to be so long as they are administered by mere men. However pure and perfect our magistrates are; however high and learned our judges may be, the best of them will at times err, and thereby commit great wrongs to

individuals. It requires no very vivid imagination to people the halls of justice with victims whom the law, thus administered in exceptional cases, has crushed and ruined.

The fact is, all power is dangerous, and were we to take counsel of our fears alone, none would ever be exercised which, by any possibility, could interfere with our liberty or property. But the safety of the State, the peace of communities, the welfare of society, and the protection of private rights demand that these risks be taken. Without its exercise society, in an organized form, can not exist. When, under what circumstances, and to what extent it shall be used, must be left, in a measure, to the erring judgment of the officers who are to administer it. Under the laws of this State, the power and duty to restrain and care for the insane is conferred upon the medical superintendent of the asylum, and in its performance he can not be held to a higher or different degree of responsibility than other officers exercising like powers. Nearly, if not all, the reasons urged against this position apply with equal, and some with added force to the other officers designated by the law to perform similar or analogous duties over other classes of citizens.

It is said, however, that the laws have given to the asylum authorities no jurisdiction over sane persons. Almost in the same sense it might be said that criminal courts have no jurisdiction over persons who are not criminals, but they assume it, and with impunity condemn and imprison innocent people. It is also admitted that where a sane person is sent to the asylum by the judge of probate, the superintendent may receive and detain him without subjecting himself to an action for damages; and it will not be claimed that the probate judge, in arriving at this erroneous conclusion, although in one sense it cost the person his liberty, rendered himself liable to an action for the injury inflicted. His judicial mantle protects him. Where the medical superintendent of the asylum, under the command of the law, performs these duties, he may justly ask that the courts hold the same shield over him, for courts

may not extend immunity to members of their own tribunals, which they deny to other officers acting under the same circumstances. Like reason makes like law.

It is evident that somewhere must exist the power and duty to determine whether a particular individual comes within the class designated by law as insane. Such a tribunal is a necessity, if the provision of our constitution, in regard to asylums for them, is to be carried out. Investigations of this kind are necessarily *ex parte*, so far as concerns the person claimed to be a lunatic is concerned. The law has always regarded these as proceedings *in rem*, whereof notice could not be given as in common law actions. However much deference is to be paid to the determination of the judge of probate, when the investigation is before him, although *ex parte*, or to the deliberations of the fireside forum, these are inadequate to meet the necessities of the case. They may perhaps be sufficient to raise a presumption that there was probable cause to believe the person at that time insane, and be allowed to occupy a place similar to preliminary examinations by magistrates in criminal cases, but there should still be, in addition, some competent and skilled officer to examine the case anew. The intellect is a matter of too much importance to be left a day dependent upon a bare legal presumption. The hope and possibility of a change for the better in the sufferer is sufficient for humanity to imperatively demand that the patient be made the subject of constant and daily tests. The statute attempts to provide such an officer with duties and powers very clearly defined. Thus: Section 1,914, of the compiled Laws, requires the trustees of the asylum to appoint a medical superintendent, "who shall be a well-educated physician, experienced in the treatment of the insane." What for? and why is he required to possess these high qualifications, if he is not to use them?

When is he required to exercise them? Section 1,920 answers this question in the following emphatic language: "He shall daily ascertain the condition of all the patients." That does not mean the second, or any subsequent day after the patient's arrival merely,

but it means the first day also. It means every day, including the first, he is at the asylum, without regard to the class he belongs to, or any presumption as to his condition when he started for the institution. The fact that he is to make these daily tests, recognizes the law of change rather than the presumption of a continuance of his disorder, and implies that humanity and the laws of health, rather than a dry legal rule shall govern his conduct towards the patient. And that the officers may always be at hand to perform this duty upon the patient's arrival, sec. 1,914, as amended in 1873, requires the medical and assistant medical superintendents to "*constantly reside in the asylum.*" This daily duty is to be performed until the patient is restored to soundness of mind.

The law then commands the superintendent to at once pass upon the patient's condition, on his arrival at the asylum, whether sent by his friends, the probate judge, or otherwise, as well as daily thereafter, so long as he remains in the institution. This ought to settle the question in dispute, for all appear to concede that if this be a duty enjoined upon the medical superintendent by law, he can not be held liable for a mere error in judgment in performing it. Indeed, the bare fact that the superintendent is to treat the person, and that he is brought there solely for treatment, and to the end that he may be healed, necessarily implies that this officer must exercise his judgment, and determine what is the matter with him, for otherwise how can he know what to do with the patient? If he finds him insane, that determination makes it his duty to receive him into the asylum, the detention there being only a part of his treatment. If he decides this at his peril, then he is equally as liable for refusing admission to an insane patient as for receiving one who is sane. No law ever applied such a superhuman standard of ability to an officer as this proposition implies.

The statute requires the superintendent to be a well-educated physician, experienced in the treatment of the insane, and it never contemplated he should exercise a degree of skill or knowledge which it did not require

him to possess, and especially to which no human being ever yet attained. The law does not demand impossibilities of men. Adopt the rule contended for, and make him responsible for errors in judgment, and the officer must be infallible to be safe. Nor would even this be sufficient for his protection, if the matter is to be afterwards overhauled in an action against him for damages, unless the trial jury and judge are also infallible, for they, with their imperfect understandings, may decide that which was infallibly right to be wrong. That a sane person, by an error in judgment of the medical superintendent, may be confined in the asylum, is perhaps within the range of possibilities, but when the fact that it contains so many officers, assistants and attendants, with more or less of whom the patient comes in daily contact, and the daily test he is subjected to, are considered, the possibility of such an occurrence becomes too remote and shadowy to be made the basis of a rule of law, except upon the theory that these officers, assistants and attendants are conspirators, banded together for the purpose of shutting up within the asylum cells, secretly, and beyond the reach of friends, all people whom they can get hold of, merely to gratify a cruel and wicked disposition—that, in short, the institution is a place where those who enter leave hope behind. Unless some such extravagant view as this be taken of the situation, it is incredible that a sane person need remain there any particular length of time against his will. But courts have no more right to assume that the officers of the asylum will act in bad faith than will the judges of courts. Whenever such a case arises it will be time enough to deal with it. No rule of responsibility can be founded upon such a theory. Perfection does not exist, however, in any system ever yet invented by man, and hence it is only reasonable to presume that the one adopted for the government of the asylum has its defects, which those who make its laws will remedy as time and experience demonstrate them. The lack of sufficient publicity attending the admission of patients into it, is the one entitled to the most consideration;

but, as it now is, so long as the medical superintendent or his assistants, and the assistant physicians, faithfully and honestly perform the daily duties imposed upon them by law, in regard to the examination of the patients, and are competent to fill these positions, the danger from this direction bears no comparison to the risks incident to proceedings in legal tribunals.

But the probability of injustice being done to the superintendent, if he is to be held answerable to every adventurer who chooses to sue him after leaving the asylum, are incomparably greater than of wrong to sane persons by being confined within it. A jury is not so competent to ascertain whether or not the person was insane when in the asylum, as the officers of the asylum who base their opinions upon examinations made at the very time when the person is afflicted with his malady, and hence upon evidence that can not lie or be distorted, or in any way depend upon the fading or prejudiced opinion of witnesses, unless their learning, skill and experience in the detection of mental disorders, and their opportunities to determine the fact, are matters of no account. No one experienced in the trial of cases in courts will, for a moment, doubt this, so long as all parties act in good faith. To subject their carefully considered and intelligent conclusion to the test of a trial before a jury, months or years afterwards, is, in point of ability, appealing from a superior to an inferior tribunal, which, in many instances, would result in wrong to the superintendent. If greater publicity should be given the proceedings, in regard to the admission or examination of persons in the asylum, let this be provided for by those who have authority to make laws for that purpose, instead of visiting upon the officers of that institution the possible consequences of such omission in a supposed case. In the case at bar the plaintiff does not claim she suffered injury from any such source. It is not pretended but that her relatives had full notice and knowledge of the proceedings, and of the facts as to her situation. All concur in saying that she was taken to the asylum in one of the methods provided by law for that purpose,

her relatives consenting, and that is sufficient for the purposes of this suit, even if the law allowing her to be sent there might be bettered. Indeed, it is almost impossible to conceive how greater notice could have been given.

The question, then, may be reduced to this:

1. When a person is taken to the asylum by his relatives, he must be received or rejected by the medical superintendent, without the judgment, aid or direction of any other officer, court or judge, the law providing no way by which their judgment, direction or aid can be invoked, either by the alleged insane person, or by his relatives or friends, or by the superintendent.

2. The superintendent is thus forced and compelled by the high mandate of the law to decide what is to be done in the premises, according to his own judgment, without assistance outside the asylum, but he is not required to decide according to the judgment of anyone else.

3. The law can not be guilty of such a monstrous wrong as to command him to decide and determine the patient's condition according to his own unaided judgment, and then punish him for obeying its requirements.

There is nothing in this case tending to show that Dr. Van Deusen has violated any law of this State, in his treatment of the plaintiff, and if he is to be held responsible for anything it is for observing the law, and performing a duty which it enjoined upon him. An action based upon a liability springing from such a source is not entitled to favor in a court of justice.

The superintendent of the asylum has jurisdiction over the subject matter of insanity, and, under the statute and laws of the State, authority and power to decide *prima facie* what persons come within that class when presented to him for that purpose, in either of the methods provided by law, and when so called upon, it is his duty to decide the fact, and this determination will protect him while acting under it, until reversed by a proper tribunal. In exercising this

power he performs a duty of a *quasi* judicial nature, and is entitled to the same protection as other officers exercising like powers. Like them in its performance he must be left free to act upon his own unbiased convictions, uninfluenced by fear of consequences. He is not bound at the peril of an action for damages to decide right, but to decide according to his own convictions of right. Such of necessity is the nature of the trust assumed by all on whom power, in its nature judicial in a greater or less measure, is conferred. This trust is fulfilled when he intelligently and honestly decides according to the conclusion of his own mind, in a given case, although there may be doubts of its correctness, and when another mind might honestly come to a different conclusion. If he decides the question of whether the person presented is a fit patient for treatment in the asylum, at his peril, no one, with sense enough to perform its duties, could be found to accept the dangerous position of medical superintendent of the asylum for the insane. If this be the measure of his responsibility, the walls of the institution may as well be razed to the ground, for the days of its usefulness are over, at least so far as private patients are concerned. Such a rule would defeat the object and purpose of the law in founding it, and turn this great charity of the State into an engine of wrong, working ruin to those honestly and faithfully endeavoring to carry out the State's benevolence.

The rule of responsibility applied to other officers performing duties thrown upon them by law, and whereof the necessity for their action is confided to their discretion and judgment, must govern this case. The jury will therefore be directed to render a verdict for the defendant.

JOHN B. SHIPMAN, *Circuit Judge.*

After the delivery of the opinion and charge the jury returned a verdict for defendant, in accordance with the instructions of the court.

Since the foregoing was put in type we have another decision, rendered by the same judge, upon a motion for a new trial, made by the plaintiff in this cause, on three distinct grounds, which are recited and reviewed by the judge in detail. It will be sufficient to indicate the points, without copying the opinion in full.

The first ground was the omission of the plaintiff to use in her *direct* evidence the clinical records or notes made in the institution, as a daily history of the patients, having reserved them for rebutting testimony. In this way, however, they *were* used on the trial to show discrepancies in the testimony for the defense, but with little or no effect. The judge decides these records were used for all they could show, and that no testimony offered, bearing on the question of good faith, had been ruled out.

The second ground, (and a more plausible one), was, that the question of "good faith," as a *matter of fact*, should have gone to the jury. The plaintiff's counsel, in the previous proceedings, had, on occasions, both admitted and denied the fact of good faith, but claimed it was no defense. He now claims that the court should have defined what constitutes good faith, and then left it to the jury to say whether it existed.

In answer to all this, Judge Shipman reiterates the principle that it is the right of the court to decide whether or not there is any evidence tending to show bad faith in the defendant receiving a patient into the asylum, and if he finds there is *not* any such evidence, to withdraw the question from the jury. He cites a large number of cases, from both the State and national courts. In 40 Mich., 150, the court says, "where there is only a *scintilla* of evidence on any essential fact, the case should be taken from the jury." In 54 N. Y., 360, (*Alger vs. Gardner*), the court declares, "it is error for

a judge to submit a question to a jury where there is no evidence to authorize any finding thereon, and it is for a similar reason correct to refuse to submit a question unsupported by evidence." In 94 U. S., 284, (*Commiss vs. Clark*), the Supreme Court lays down the rule that, "before the evidence is left to the jury, there is, or may be, in every case, a *preliminary* case for the judge, not whether there is literally *no* evidence, but whether there is any upon which a jury can properly proceed to find a verdict for the party producing it, upon whom the burden of proof is imposed;" and again, in 22 Wall, 122, the true principle was said to be, "if the court is satisfied that, conceding all the inferences which the jury could justifiably draw from the testimony, the evidence is *insufficient* to warrant a verdict for the plaintiff, the judge should *say* so to the jury." He also cites the recent case of Dr. Hitchcock, who was sued by one Burgett for negligence and want of skill in treating him for an injury to his hip. The presiding judge allowed the case to go to the jury, who rendered a verdict for the plaintiff on what was claimed to be the evidence, but the Supreme Court held, on review of the case, that there was no evidence in it, under which the doctor could be held liable, and that the judge should have so charged, or taken it from the jury.

In this case before us, Judge Shipman goes on to say the strict issue presented is, whether the defendant committed a trespass to the person of the plaintiff, and falsely imprisoned her; not an action for malpractice or negligence or ignorance. In cases of trespass for false imprisonment, the question is whether the magistrate had jurisdiction to issue the process: here the question is, did the medical superintendent have juris-

diction of the subject matter and did he act in good faith? If so, trespass would not lie even for subsequent careless or negligent treatment. Still the plaintiff was allowed to show everything, but the evidence submitted hardly amounted to more than a *scintilla*, to prove either bad faith or bad treatment.

The opinion also goes pretty fully into the subject of the competency of witnesses, especially those who have been insane. This part of it would be of considerable interest to the specialty, aside from the particular issues of this trial; but our space is already too much occupied to reproduce it here. We simply give the rule on this point, quoted from Wharton: "If the witness appears on examination by the judge, or by evidence *aliunde* to have been incapable *at the time of the occurrence* which he is called to relate, of perceiving, or to be at the time of the trial incapable of relating, then he is to be ruled out." On this rule, it is not difficult to see how little importance could be attached to the evidence of a person who had undoubtedly been insane, like Mrs. Newcomer, as to any events or circumstances occurring during that period.

The *third* ground for the motion simply raised the question whether "good faith" is a defense, viewed as a matter of law. This point was sufficiently gone over in the previous decisions. The objection is now made that if a superintendent acts judicially in receiving a patient and judging of his insanity, he could not be afterward liberated on a writ of *habeas corpus*. The judge meets this by saying that it is *not* the superintendent who places or consigns the patient to an asylum. His act is but the diagnosis of a physician employed by the State, to treat patients *sent* to the insane hospital. A private physician can choose his patients; a superintendent is compelled by law to act for all who

are sent him; "but he is in no sense a prison warden, and can not be held liable as such."

We suppose this means that a superintendent acts judicially only *pro hac vice*, to determine the question of insanity, whether it confirms or reverses the act of those who seek to have the patient committed to the asylum in accordance with law, unless, indeed, the commitment be by order of a court, in which case there may be no immediate discretion.

We think all our readers will agree as to the great interest of the questions handled in this case, and acquiesce in the propriety of devoting so much space to it in this JOURNAL.

ENGLISH LUNACY LAWS.

1. *The Evidence before the Select Committee of the House of Commons on the Lunacy Laws*: 1877.
2. *The Journal of Mental Science for January*, 1878. London: J. & A. CHURCHILL.
3. *Lunacy in its Relations to the State*. By SIR JAMES COXE, M. D., F. R. S. E., F. R. C. P. E., Commissioner in Lunacy, Scotland.

In consequence of certain random statements, bruited about in the public press, and emanating, as is supposed, chiefly from a few partially recovered lunatics, who were at large, the House of Commons appointed a committee, early in the last year, of fifteen members, with Mr. Stephen Cave as chairman, to investigate the efficiency of the lunacy acts, as bearing upon the liberty of the subject, and the possibility of sane people being incarcerated under these acts, by mistake, fraud or conspiracy. The inquiry, however, took a much wider range, and extended to the whole subject of the general treatment of the insane, from the manner in which their insanity is first determined, to the final question of recovery and restoration to liberty; the two points about which, as the most important, such an investigation must chiefly concern itself. When once the inquiry was gone into, it became of little consequence what circumstances may have caused it to be instituted, though there does not appear to have been any *cause célèbre*, or any special public event, to draw attention to the subject. At any rate, we look in vain through the huge Parliamentary Blue Book, of 582 pages, with 11,462 questions and answers, which was the outcome of this commission, for the testimony of any recovered

lunatic, as to his experience of lunatic asylums. Of the fifty-nine witnesses who were examined, seventeen were government officials, and of the twenty-six medical witnesses only *three* were taken from the ranks of general practitioners, (the class who usually sign the medical certificates), and of these three only one was questioned beyond certain points connected with individuals. Only one member of the numerous committees of visitors of the asylums, not a single visitor of the provincial licensed houses, and not a single member of the legal profession was examined; while the poor law guardians in England, and the sheriffs in Scotland, and the inspectors in Ireland, (except one Dr. Nugent), all of whom have so much to do with carrying out the lunacy laws, were completely ignored. Surely the *insouciance* of red tape could hardly be carried further.

Of course, the testimony on the general subject of insanity, given by such witnesses as Dr. Bucknill, Lord Shaftesbury, Dr. Robertson, Dr. Maudsley, Sir James Coxe and Dr. Nugent, could not but present many valuable opinions and results of experience, on a great variety of questions; but our object is, if possible, to sift out the actual truth in regard to the bearing of the lunacy laws, in their practical operation, upon the personal liberty of the citizen or subject.

It is as good as an axiom of civilization that it is the duty of the State to protect the community from any risk that might arise from the actions of an insane man; we may add, to protect the insane person himself from damage in person or property from his insanity. Hence, the initial question of all is, what constitutes insanity, and how is it to be determined? This, and nothing less, is the issue presented by the old common law writ, *de Lunatico Inquirendo*, as applied to any individual subject. This goes directly to the

question of every man's personal liberty. The lunacy laws of Great Britain provide that any person, to be brought within their provisions, must be certified, on *medical authority*, to be "either a lunatic, or an insane person, or an idiot, or a person of unsound mind." The Statute of New York provides that "the terms 'lunacy,' 'lunatic' and 'insane,' as used in this act, shall include every species of insanity, and extend to every deranged person, and to all (cases of) unsound mind other than idiots," for which last there are separate and special provisions. It is hardly possible for a law to enter into a scientific definition of insanity, or do more than use a succession of terms, which are rather synonyms than definitions of each other. Our statute also requires the fact of insanity to be established in all cases by medical authority, the certificate of two physicians under oath being required, both of whom must be graduates of some incorporated medical college, and of at least three years' standing as practitioners. They can also certify only after actual *personal* examination, and their certificate, as well as their qualifications, must be approved by some judge of a court of record, who has the discretion of instituting proceedings in the nature of the old inquisition of lunacy, in order to verify the facts. Though a matter of actual experience, public officers are too apt to act, in many cases, in a mere ministerial capacity, the intent of the law apparently is to rest the determination chiefly upon the medical authority. And the remarkable fact comes out, all through the testimony before this parliamentary committee, notwithstanding the criticism made by some against leaving such a question to members of the profession at large, instead of to experts, that the medical certificates have very rarely made any mistake. Many of the witnesses never knew of a case in which a sane person had

been dealt with as a lunatic, under the ordinary mode of procedure; and that, too, although it appears, in England, a total "stranger" may sign the "order" for commitment to an asylum after the medical certificate, which "order" does not require to be countersigned by any public authority whatever, and it is not made any one's duty to inquire or know why such order was signed. It seems incredible that abuses should never occur, under such a state of the law as this. It speaks well for the truth and fidelity to science, which, after all, become habitual to all practitioners who aim at a useful and reputable standing in the community. The New York Statute, it will have been seen, does not leave so much to be taken for granted. If medical collusion, or ignorance even, were suspected, it would be perfectly feasible to right the wrong, even before the patient reaches the asylum, through the inquiry which is left open to the public officer. In Scotland the provision is similar to ours, in that the medical certificates, required for both private and pauper patients, are the same, and the "order" is given by the "sheriff," though the witnesses in this inquiry were not quite clear, as to whether these sheriffs act in a judicial or ministerial capacity. The Scotch law, however, is defective, in allowing a total "stranger," (in the legal sense), to petition the sheriff for an "order," which he may even grant on medical certificates six months old.

In the first instance, then, as a general rule, the "liberty of the subject" depends, *quoad hoc*, the question of insanity, on the correctness and good faith of medical testimony. We do not see how, after all, this can be otherwise. It is no more than saying that the convalescence of the sick man, (if *not* the health of the community), depends on the care and skill of the physician. Insanity, as a *disease*, comes entirely within the

scope of the medical profession, and is exclusively a subject for medical diagnosis and medical treatment. The sooner this is everywhere acknowledged, and acted upon, the better for humanity. As a disease it is often sufficiently subtle, and even obscure, to give rise to differences of opinion. They who have regarded it as a mere state of mind or emotional condition, may well insist upon the chances of mistake. But if insanity is a *disease*, as we know it is, it should be dealt with from first to last on medical principles. Of course, we have no objection to Lord Shaftesbury's argument against "special doctors," that "they would surrender everything to science, and shut up people by the score." Our New York law goes far to exclude specialists, in providing that no certificates shall be given by any officer or professional visitor of an insane institution, for admission to that with which he is himself connected. We prefer, however, the alternative presented by Dr. Crichton Browne, who, in his testimony, earnestly advocated a short course of study of mental disease for *all* medical men. And we may say in passing, that we by no means agree with the strictures of the *Journal of Mental Science* upon Dr. Browne's statement that lunatics are very frequently treated unkindly among their friends, in the early stage of their insanity. No doubt it is true, as Sir James Coxe says, when speaking on the question of medical experts, that a man's own relatives may be the first to perceive a departure from his normal condition; but no degree of ignorance was ever incredible, and there is far more truth than we like to contemplate in Dr. Browne's strong statement that "cruelty and chastisement, as if for an ordinary case of misconduct, are the rule in the early stage of insanity." The remark that "mismanagement from ignorance is common, cruelty rare," seems strangely inconsequential to anyone

who has observed the state and condition in which patients are often brought long distances to an asylum, and has learned to appreciate the fact that there is no cruelty like the cruelty of ignorance. The researches of science, and the humane labors of specialists, have accomplished a vast deal in abolishing or mitigating the rigors that once prevailed both within and outside of institutions for the insane; and in producing a more enlightened public sentiment on the general subject; yet there can be no doubt that very frequently what, to an experienced medical eye, would be symptoms of the incipient disease of insanity, are regarded only as indications of demoralization, and visited with the harshness on the part of friends and the public, due to perverted principles or moral obliquity. We can not, therefore, quite agree with Sir James Coxe, in what he says with regard to the value of medical diagnosis and evidence in all cases:

The cases in which most difficulty is experienced in determining the existence of insanity, are perhaps those in which there is an eccentricity of thought, or an excess or deficiency of the moral perceptions. For instance, it may be open to discussion, whether a believer in spiritualism is or is not insane; and a like doubt may be experienced where there has been over-indulgence in the use of alcohol or opium, or where there is such an exaggeration of the natural character as to overstep the bounds which, in common opinion, mark the domain of sanity. In cases of this kind, however, it would be difficult to maintain that any special medical training is required to discriminate between sanity and insanity; and, indeed, it would be difficult to show in what respect a medical man is better fitted than a lawyer, or any man of good sense and liberal education, to determine whether a believer in spiritualism is sane or insane. Further, a medical man can scarcely be said to be in a better position than any other educated man to distinguish between vice and insanity, or to decide between punishing for crime or treating for disease.—*"Lunacy, in its Relations to the State."*

We should rather say that the task of "distinguishing between vice and insanity" was just the case which would specially require the services of an expert, and in which the common sense of the general public would be most likely to be led astray, and furnish too little security for a correct decision. Indeed, Sir James himself admits that persons, undoubtedly insane, often succeed in passing themselves off for sane, in spite of the closest cross questioning, and that even a medical expert may sometimes be puzzled to obtain evidence of delusion, unless he were previously informed in what direction it lay. He says:

Many of the witnesses examined by the committee dwelt on the difficulty of recognizing the existence of insanity in cases of delusion, and no one can doubt that this is often a difficulty of a very serious kind. Indeed, even an expert would often be puzzled to obtain evidence of a delusion, unless he were previously informed in what direction it lay; and, with such information to guide him, a non-expert would probably prove equally successful. It appears from the evidence that cases are not infrequent in which the medical superintendents fail for days, and sometimes even for weeks, to assure themselves of the existence of insanity, although they have for their guidance the facts embodied in the medical certificates on which the patients were placed under their care. Here, be it observed, we have the most experienced of experts puzzled for a time, and unable to recognize facts which had already been detected and made known to them. When there is no guide to the delusions, their discovery will often prove a matter of exceeding difficulty, even to the most experienced physicians, although, when once hit upon, the evidence of insanity may be simply overwhelming.

These very facts only confirm the truth that insanity is not a subject that can safely be left to the haphazard guesses of a "general public," or to any other authority than a profession that includes and is devoted to the study of all derangements of the human organization, whether called physical or mental. And the allusion of Sir James Coxe to the "different views advocated by

the medical partisans engaged on each side" of some particular case, only establishes the proposition that the question, before whatever judicial tribunal it is brought, must ultimately be decided by the preponderance of medical testimony. Sir James admits that it is impossible to draw a hard and fast line between sanity and insanity, and Dr. Maudsley, in his testimony, compared it to getting the precise boundary between daylight and darkness. If so, much more does it require medical knowledge and skill to make the distinction. And although, as has been said, a man's own family may be the first, in most cases, to detect the aberration of mind and judgment, a trained physician might generally have been able, from physical symptoms, to warn his friends, some time beforehand, of what was coming. It is of no use to attempt, as Sir James Coxe and Lord Shaftesbury do, to put legal or any other kind of professional knowledge in competition with medical diagnosis, in determining the question of insanity in any individual case. Insanity is a disease, and the fact that its relations and causation are of a subtle or obscure character, only strengthens, instead of weakens, the argument for the exclusive claim of medical science to deal with it. The whole question of its bearing upon personal liberty resolves itself into the simple truism that when a man becomes sick and helpless, disabled from taking care of himself, it is no time to talk of the liberty or labors of life—he must be sequestered, and taken care of. It is but the inevitable of the loss of his health. It is, of course, important that the necessity be fairly and certainly established; but if medical authority be insufficient for this, there is surely no other that can take its place; and men daily commit, not merely their liberty, but their lives to medical skill. As to the practical protection of the medical

certificates alone, we endorse the clear statement of Dr. Crichton Browne:

Q. According to the present practice, whenever medical men certify a person to be insane, they have to give their reasons for coming to that conclusion? *A.* Yes.

Q. Are you in the habit of seeing the reasons that are given by medical men; does that come within your department? *A.* When I was at the head of a county asylum I had to examine those reasons to see that they were, in my opinion, sufficient.

Q. In your judgment, does that afford a considerable protection against persons being improperly confined? *A.* A great protection.

Q. The reasons are given to an extent which enables you to judge whether the conclusion as to lunacy has been founded upon sufficient data? *A.* Undoubtedly; and if they were not sufficient I should decline to receive the patient. In signing certificates, medical men are actuated by entirely different notions from those that are sometimes advanced by lunacy practitioners giving evidence in a court of justice; I should never have received in a certificate such a statement as "an irresistible impulse," or "no adequate knowledge of consequences," or vague statements of that kind. The evidence given in certificates is generally substantial, and so clear and free from technicality, that it would be intelligible by any layman.

Q. That is your experience of the nature of the evidence set forth by the medical men? *A.* That is so, having examined some 5,000 certificates.

There can not, however, be any objection to the strictest care and supervision on the part of the State, in regard both to the commitment and the subsequent detention of the insane. The principle of official accountability and oversight should run through this, as well as all other departments of public administration. In this respect the testimony before us shows some obvious defects in English legislation. In the first place, as appears by Dr. Bucknill's testimony, (*Q.* 1,750, 1,755), that any stranger, who can get two medical certificates, may sign an order for the detention of

a wife, (for instance), contrary to the wish of her husband, in any private asylum with which he may make an agreement. Dr. Bucknill condemns this as a state of things which ought not to exist, although he believes persons are "very rarely admitted wrongfully" under it. And yet he declares that some persons are *detained* too long in such asylums. Again, there are two boards of visitors and commissioners, one consisting of three members, for patients who are the wards of chancery, having property of £1,000 and upwards, of whom, in 1877, there were but 995, and 319 of them in private dwellings; the other consisting of six members, having the oversight or visitation of 43,828 patients in public asylums, and 458 private patients in ordinary dwellings; while there are 16,038 pauper patients in work-houses, and 6,312 in private dwellings left to the discretion of parochial authorities, without any visitation at all. This shows one law for the rich, and another for the poor. Dr. Bucknill, and most of the other witnesses, with the exception of Dr. Lockhart Robertson, are earnestly in favor of consolidating these two boards of visitors, and extending their visitation to the lunacy wards of the work-houses, as well as to all the public asylums.

Again, in England, no judicial authority appears to be necessary in the commitment of the insane, the parish relieving officer acting with the clergyman or a justice in all *pauper* cases, with *one* medical certificate; while in the case of private patients, the order, (signed by anyone), with two medical certificates, is sufficient. In Scotland the sheriff must give the order in *all* cases, with *two* certificates; though, in urgent cases, a patient may be admitted on *one* medical "certificate of emergency," which is in force only for three days, long enough for the sheriff to be reached and to pass upon the case.

Obviously, the distinction made in England between pauper cases and others, is both invidious and useless. No valid statistics can be based upon it, with reference to the connection of insanity with pauperism, for in every State a large share of the patients supported by the State, and thus classed as paupers, do not come from the ranks of pauperism at all; for they consist largely of working men, including even professional men, who were amply able to support themselves and their families while in health, the loss of which only deprived both of the means of support.

One characteristic of an ancient civilization, like that of England, is that several interests or institutions that might properly be combined under one head, often grow up separately, though side by side, involving what are called "vested interests," and thus presenting great obstacles to reform by consolidation, codification, or other methods of economizing time and material. The whole system of chancery supervision, with its cumbrous machinery, is a palmary instance of this immobility in the midst of an age of improvement.

In Scotland there is a provision which seems to operate well, by which the asylum superintendent may be required to transmit to the commissioners of lunacy a statement of the "physical condition" of the patient immediately on his admission. The case books of our institutions, always accessible to proper officers, of course exhibit a full account of the condition of patients on admission, as well as the nature of the papers under which they were committed.

But, after all that has been said and done in regard to precautions against fraud or mistake in the commitment of patients, there is, on the other hand, danger of a great evil arising from too great stringency in the requirements of evidence, or too great elaboration in

the details of procedure. That evil is, disastrous delay in getting the patient under treatment, at a time when treatment is of the greatest importance. Both Dr. Bucknill and Dr. Maudsley, in their testimony, bore witness to the principle of early treatment, so generally accepted among the specialty, and the latter showed that medical men, so far from being in too great haste to certify to the disease of insanity in any given case, are, on the contrary, often exposed to many influences which tend to make them postpone such action longer than they really should if they had sole regard to the welfare of the patient himself. Dr. Maudsley's testimony was so suggestive upon this, as well as several other matters, all of which have more or less bearing upon the question of commitment, that we reproduce it almost entire :

Q. What is your opinion as to the law of admission of patients into private asylums? *A.* My opinion is that with regard to the admission of patients it is sufficiently stringent, and quite as stringent as it can be, consistent with the proper treatment of insanity in its early stages.

Q. You mean you think that if there was more care taken, more delay in admitting or consigning patients to asylums, their cure would be more doubtful? *A.* Undoubtedly; there are two great objects to be kept in view in regard to the detention of patients; they are put under care, not only for their own safe custody, because they are dangerous to themselves or others; but another and most important object, if insanity is to be cured, is that they be put under care for treatment, and early, because recoveries are entirely in proportion to the early stage at which treatment is adopted. If regulations are made more stringent than they are now (and indeed the present regulations operate to some extent in that direction) the friends of patients will, instead of sending them from home, as is almost essential in a case of insanity—unlike in this respect other diseases—keep them at home under proper conditions, and so very much injure the chance of recovery.

Q. Would that early treatment necessarily involve sending them from home; could not they be treated to a certain extent as

out-patients? *A.* If a patient is sent from the care of his own friends, even if it is to a private house, it is absolutely necessary to go through the same forms as you go through to place him under care in an asylum; and my experience as a physician is that friends shrink very much from doing that. They dislike the supposed publicity of it; they dislike the formally pronouncing him to be a lunatic; and they will not remove him from home in consequence.

Q. Are there not cases of incipient lunacy which might be met by medical treatment, as an out-patient would be treated in other diseases? *A.* No doubt in some cases there might be, but the difficulty of the early treatment of lunacy arises very much from this, that a man does not himself recognize that he is becoming insane. Very few insane people do acknowledge that they are insane; it is quite the exception when they do, and in the early stages it is a most uncommon thing for a man to suppose so; he rebels against all kind of treatment then; will not see a doctor; thinks the idea that he is ill perfectly absurd. Just at the moment when it is most important that something should be done, at that time there is the greatest difficulty in doing what is desirable.

Q. It would not apply so much to young people, I suppose, whose relations would ordinarily be accustomed to take them to see a doctor? *A.* It would not apply so much to young people. I think it is often quite impossible, however, to treat, say, a young lady of eighteen who begins to exhibit symptoms of incipient insanity, and who undoubtedly will get well if properly treated, satisfactorily at her own home, simply because the home surroundings are exactly the surroundings in which she can not possibly get well. It is absolutely essential to send her from home, from among anxious and agitated friends, if any good is to be done.

Q. Then, again, there are dangers of such a person, as the young lady you mentioned, being sent by mistake to an asylum, in which case the symptoms would be very much aggravated, would not they? *A.* I do not think it would be advisable to send her to an asylum, nor would I do so; but I should send her from home to some medical man's house, or to the house of some suitable person. If I have to do that, I have to go through exactly the same forms as I do to send her to an asylum, and there is the greatest unwillingness on the part of friends to do that. All I desire to see done, if feasible, would be to distinguish with regard to the stringency of admission-forms between the early cases of insanity in which it is a question of treatment, and chronic cases

of insanity in which it has become rather a question of safe custody.

Q. And yet all over the country, people are exposed to be sent to an asylum upon the certificates of two medical men, who, really, are not qualified to give an opinion? *A.* There is no doubt about that; but I think the way in which that operates mostly is that, feeling themselves not qualified, they shrink very much from giving certificates. There are some medical men who will not give certificates under any circumstances scarcely. The medical man of a family is often unwilling to do so, because, when the patient comes out from under care afterwards, he probably will have some feeling of hostility towards him; and I am sure the medical profession, as a body, would be extremely glad to be released from the necessity of certifying.

Q. Do you think any alteration of the law would be advisable, to meet that difficulty? *A.* It depends on what the alteration of the law is. I have considered the matter. If it is considered desirable, as I heard suggested, that the certificates should go before some public official before they were acted upon, it seems to me that no public official would be in a better qualified position to judge of the value of the certificate than the Commissioners, to whom exact copies are sent within twenty-four hours; indeed, not really so much so. If he entered really into the matter in each case, it would be a very anxious responsibility, a formidable matter for him to undertake; and if he did not, it would simply become a mere matter of routine, which, adding to the publicity, and adding to the expense, and adding to the delay of getting a patient under care, would make the early treatment more difficult than it is.

Q. Do you think a medical board, under government, one of whom should, within a certain time, certify, would be an advantage? *A.* It would be an advantage if you could be sure of having him the moment you wanted him; but it seems to me that, in a case of insanity, it may be of the most urgent importance, in a violent case, to take instant action. The man is making the house a perfect pandemonium, and nothing can be done. You would have to go to the official, who perhaps would not be able to come for a day or two.

Q. You might meet that difficulty by the emergency certificate which they have in Scotland? *A.* That would be a mode of meeting it, undoubtedly. Then you would have to consider how much the public would object to having a public officer intervene

in every case of insanity, when it was merely desirable to remove the patient from home to a private house near perhaps, or at the seaside. They would shrink very much indeed, according to my experience, from having a public officer come in to proclaim, say, a young lady at eighteen, a lunatic, or a wife after childbirth, who is insane, perhaps, for a month or two. To a professional man, such a public thing might be almost ruin.

Q. Would there be greater publicity in that way than there would be from the certificate given by a medical man in the neighborhood? A. Yes, it would be thought so; because, as a matter of fact, certificates are often given in this way; the medical officer of the family, who is in regular attendance, gives one certificate; he calls in a physician in consultation, who then sees the case separately, afterwards, and gives the second certificate. There is no alarm of the patient; it is merely an ordinary matter of consultation, as it appears to him.

Q. Do you think the system of private houses a good one? A. I think it is very important in the early treatment of insanity, in some cases, that they should not be sent to asylums, when it is still important that they should be placed under some kind of care.

Q. By a private house do you mean a single house, with one attendant? A. No; I object entirely to that, under any circumstances. I mean the house of a medical man, or some responsible person, who overlooks the attendant as well as the patient.

It will be seen that, what with the legal requirements already existing to verify the fact of insanity, the reluctance of physicians to incur the odium of certifying, bringing upon themselves, in many cases, the life-long hostility of the patient, and the dread of publicity on the part of relatives and friends, it more often happens, under the present system of things, that fatal delay takes place in cases of the utmost emergency requiring immediate treatment, than that persons are committed about whose insanity there may be reasonable doubts. Indeed, the curious fact comes out, in Dr. Maudsley's testimony, that the percentage of recoveries is much larger in the public asylums than in the private, which he ascribes to the more summary nature

of the proceedings for commitment to the county asylums, enabling cases to be put under treatment at the first of the attack. In addition to this Dr. Maudsley testifies, (3,779), that "in all his experience in county asylums, as superintendent of a middle-class hospital for the insane, or as a proprietor, he had never seen a single undoubted instance of a person of sound mind being shut up as of unsound mind."

It is well known how easily some kinds of insanity can conceal itself from ordinary apprehension, and make what seems a most rational appeal for sympathy from outsiders, ignorant of their real history and condition. So, in cases partially recovered, or sufficiently so to be accorded their liberty, the public is often imposed upon with a plausible narrative of outrage and wrong, based partly upon imagination, and partly upon a wholly perverted misconstruction of the facts and proceedings in the case. Thus it is with several of the instances of grievances brought before this committee. Even the case of Mrs. Petschler, which the testimony of certain lay persons, who depended chiefly on herself for the facts, appeared to make an overwhelming demonstration of malfeasance in office and fraud in procedure, is entirely dissipated by the Medical Superintendent of the Macclesfield Asylum, where Mrs. P. was a patient, who shows that her papers were in due form, that she was really insane, and had delusions of poisoning, and that she was duly discharged when sufficiently recovered, and would have been so with or without her friends' consent. We can hardly recommend a more salient and striking example to anyone who wishes to see what a portentous "case for investigation" can be easily gotten up by many a discharged lunatic. We had ourselves made up our minds, on reading the testimony, that "some one had blundered," until we came to the

statement of the superintendent himself, armed with the documents and real history of the case. Dr. Maury Deas appears very creditably in the whole matter, and even goes beyond the limits of his own responsibility to point out that the only error in the case was the deception practiced upon the patient to inveigle her into the asylum, a course which the doctor, in common with all of us, greatly reprobates, (see 7,709-7,905). Dr. Deas also expressed some very strong views against the consignment of curable cases to work-houses, and wished the law modified so as to make the lunatic wards of work-houses, places of custody for the chronic and harmless cases. In this he appears to agree with Dr. Maudsley, that a difference might be made in the procedure for committing recent cases to asylums, and that for disposing of quiet and chronic cases in work-houses, or under private care. The "certificate of emergency," (to be verified within three days after commitment), in Scotland, appears to answer a similar purpose, while under the New York statute security is provided by the requirement that the certificates must be approved by a judge of a court of record within five days. Another curious thing that comes out in Dr. Deas' testimony, is that it is a very common thing for relatives to enter a patient as a pauper, and then pay the board of guardians the usual price for his support. This was done in Mrs. Petschler's case, her sister meeting the payments. The object appears to be to obtain some of the privileges of private patients, without the full cost of such. One reason of this may be that the obviously just distinction which our law makes between the class of "indigent persons" and paupers does not prevail in England.

I.

We have seen that with all the safeguards which legislation can devise against improper commitment to an insane asylum, the medical certificates, resting on the integrity and scientific skill of the profession, must be the principal protection. And the testimony of actual experience shows that as a general rule this safeguard may be relied upon with the utmost confidence. Very rarely, indeed, has a mistake been found in such a certificate; the tendency is rather in the opposite extreme, to withhold such certificates too long for the good of the patient.

It may well be supposed that the question of improper *detention* in asylums, after discharge becomes expedient, is a more serious and difficult one to provide for. On this point we prefer to extract from the testimony, leaving our readers to draw their own inferences. The following answers were given by Mr. C. S. Perceval, Secretary to the Commissioners in Lunacy:

Q. I suppose if there is any abuse it is more likely to be caused by detaining a person rather too long in the asylum, than in taking him in when it is unnecessary? *A.* Yes, I believe the evidence of Lord Shaftesbury, in 1859, went very much to show that the real danger was not so much the taking in of any person who had no unsoundness about him, as in keeping him in rather too long, not always from an improper motive, although it is easy to assign an improper motive, namely, to get more money; but, of course, that is also consistent with over caution.

Q. I asked the question because it was a question which was distinctly asked in the former inquiry of Dr. Conolly; he stated that the profit was so small that there was no inducement to take in or keep in anybody unjustly; you have not considered that point perhaps? *A.* No, there are some of those houses in which patients are taken in paying very large sums, but in the same houses I know there are sometimes patients who are paying very small sums; I would rather not venture any opinion upon that matter at all, for I simply do not know anything about it practically.

Q. When the Commissioners in Lunacy think that a patient is beginning to recover, is there special attention directed to him?

A. Yes, always; there is special attention directed to that patient; it is their constant practice to note in the "Patients' Book," which is one of those statutory books which is obliged to be produced upon every occasion, the name of every patient who is supposed to be getting better, and they make suggestions as to his having a trial on leave. That book is submitted to the next people who come, whether Commissioners or visitors, and inquiry is made whether the suggestion has been carried out. In fact, when we get the entries in the "Patients' Book," (they are all sent up, both the entries made by the Commissioners and visitors too), we look at the cases referred to in the "Patients' Book," all those cases are kept under observation, and it is some clerk's duty to keep them under his eye and bring them before me; and if it appears that A. or B. has not gone on leave, a letter is written asking the question. How is it that A. or B. has not gone on leave as suggested, and then the answer comes either that his friends have nowhere to send him, or that he is going next week, as the case may be.

Q. Have the Commissioners themselves power to discharge in case they think the patient ought to be discharged? *A.* Yes. The Commissioners are entitled to order the discharge of a patient in a licensed house or hospital, provided it appears to them after two special visits, and after giving notice to the friends, and after a proper amount of inquiry, that there is not sufficient cause for his detention. The Act does not say that the Commissioners are to express an opinion that the patient is cured, or that he is not insane, but there is not sufficient cause for his being detained under care and treatment.

Q. Nor have there been any complaints made, suggesting that patients have been improperly retained in the asylums? *A.* I do not know about complaints made. The Commissioners, from their own observations, sometimes think that a patient ought to be allowed to go, and their friends sometimes think that it is not time that they should be discharged. It is more in the case of pauper patients that we hear these complaints, than in the case of private patients. A near relation wishes to get the bread winner of the family out of the asylum, or the husband wants to get his wife back, because he finds it very uncomfortable to be living without her, and he wishes her to be discharged, whether she is quite cured or not; those are the kind of complaints we get in much

larger numbers than those relating to the undue detention of private patients.

Q. You do not think that there is any ground for believing that people, who are once received, are improperly retained in those houses? *A.* There may be sometimes a question of degree, whether the patients might not have been discharged a short time sooner than they were discharged; but with that qualification, I should say not.

Mr. Wilkes, a Commissioner in Lunacy, and formerly Superintendent of the Stafford County Asylum, gave the following testimony:

Q. Is it not excessively difficult to judge of the sanity of a patient by talking to him? *A.* Very often very difficult.

Q. Have they in many cases, except perhaps the worst, or even perhaps without that exception, the power of self-restraint, which lasts for a certain time? *A.* Very strongly. Of course there are a great number of chronic cases unfortunately, both in asylums and licensed houses, whose state any one experienced in the matter would see by their aspect; but there are other cases where it is very difficult indeed to ascertain the lunacy of the patient. I may state as to the case I mentioned just now, where we had to visit specially, that there were two medical officers in this asylum, and they both reported, one under the statutory order, within seven days, that he did not see any insanity about the patient. We had a further report from the chief medical officer, confirming that to a great extent, upon which we visited, but we found the patient in a short time to be full of delusions, to be as insane as possible, and no doubt a dangerous lunatic, and yet he had concealed all his delusions during a fortnight or so from the two medical officers of that establishment. He admitted it afterwards; he said, "Well, you dragged it out of me," and he intimated that we had not at all got to the bottom of his delusions; that he had many more.

Q. He stated so himself? *A.* He stated so himself.

Q. Is it a fact that many patients who can not be depended upon when speaking about themselves, can be depended upon when they are talking about others, or about the treatment that others have received? *A.* Very frequently, and we have received from patients, under those circumstances, when we have had investigations to make, very reliable evidence as to the treatment of others in asylums.

Q. As to the conduct of attendants, for instance, and circumstances of that kind? *A.* Quite so.

Q. You said just now that in the case of pauper asylums, superintendents have no reason to keep them longer than they can help? *A.* Of course their object is to discharge them.

Q. In the case of private asylums there is a direct interest in retaining them? *A.* I do not think so.

Q. There may be? *A.* I do not think so. I think the interest of the proprietors of private asylums, generally, is to discharge them, and to show their lists of recoveries.

Q. Do you think it is invariably so? *A.* I do not know that it would be in the case of a chronic patient, who is absolutely insane; of course if a proprietor had a patient of that description he would not like the patient to be removed to another house; I think that is a natural feeling, but I do not think, as far as I can judge, that if the friends wished to remove that patient any obstacle is placed in the way.

Q. You see no objection to having a proprietor of a private asylum pecuniarily interested in the asylum? *A.* I do not see how you could provide otherwise for it.

Q. Do you consider that the line between sanity and insanity is so distinct that individuals who are insane can easily be distinguished from those who are not? *A.* That is a very doubtful matter; I think the line is very indistinct, and I believe there are a great many persons who are out of asylums who are not of sound mind. For instance, there are all the lamentable instances that we have of murders by people who are no doubt insane; the number of suicides which take place, especially such cases as recently occurred in London, where most valuable lives have been sacrificed for want of proper care. From a return which I obtained from the office of the Registrar General, which is at present not published, it seems that during the year 1875 there were about 1,600 persons in England alone who committed suicide. The great majority of them were probably insane, and they committed suicide for the want of proper care.

Q. They were persons whom you regard as responsible for their actions? *A.* No, I do not know that; I think many of them probably were perfectly insane and irresponsible.

Q. Is it your opinion that any person who is guilty of a heinous crime is necessarily to be regarded as insane? *A.* No, certainly not; I do not look upon all who commit suicide as insane, or upon all persons who commit murder as insane, but the great majority of them are.

Q. If the line between sanity and insanity be in itself indistinct, it would require great caution to provide against the possible detention of those who are sane? *A.* Quite so; but I do not think that those persons in whom the line is so indistinct, come under the class of patients who are received into asylums. As to the latter, generally speaking, there is no question as to their insanity. It is not those questionable cases that are certified and sent to asylums.

This witness as well as Mr. Perceval stated that the commissioners in lunacy, by virtue of their own powers, by statutory order, had not discharged from asylums over ten persons since 1845, showing the general correctness of proceedings, and the judgment of the medical superintendents.

The next witness was Dr. Lockhart Robertson, one of the three Lord Chancellor's Visitors in Lunacy. His testimony related only to chancery lunatics, about one thousand in number, who are scattered about partly in county asylums, and partly in licensed houses or private dwellings.

Q. It is a great temptation, is it not, to retain the management of a large property on the part of the committee? *A.* The management is in the hands of the court; the committee have not much discretion in the management of the property.

Q. But the committee, I suppose, has, in the case of a lunatic of large property, a very considerable allowance? *A.* Yes, he has.

Q. Which is to him a livelihood? *A.* Yes, he has a considerable allowance in certain cases.

Q. He is a person who would be anxious, if he were not a well-principled man, to keep the patient longer under his care than he ought? *A.* Yes; whenever we think a patient recovered, we always communicate to him and to the patient also that we consider the patient recovered, and that a petition must be presented.

Q. If some means could be devised by which no profit whatever, and no advantage could be obtained by the people in charge of the lunatic, do not you think that would be safer? *A.* I think

it would, certainly. I think if the committees of the person were obliged to submit accounts to the court, it would certainly be safer, but there would be difficulty in doing it where a patient lived in the house with the committee.

Q. Have you formed any opinion as to what proportion of patients are detained after they ought to be discharged? *A.* Do you mean of the Chancery patients?

Q. Yes? *A.* I do not think there are any detained after they ought to be discharged.

Q. With reference to the lunatics generally, have you formed any opinion upon that point? *A.* I think lunatics generally are detained too long in asylums; and I think a large number of lunatics who are in asylums, probably one-third, might be out of asylums. I am speaking of private patients now.

Q. I asked a question the other day whether the medical certificate might be made terminable at a certain time, and renewable, instead of being permanent; what is your opinion upon that point? *A.* I heard you ask the question, and it struck me at the time that it was a most admirable suggestion; I was much struck with the question at the time.

Q. The objection stated to it was that it would be an unnecessary expense to those who could not afford it? *A.* I think it would be a very good investment for those who could.

Q. Your opinion is in favor of it? *A.* Decidedly.

Q. You think, I suppose, that a more minute examination of the case would take place than at an ordinary visit? *A.* Yes, there would be such a special examination by some physician who would be supposed to have some special knowledge of the subject.

Q. You would add to that suggestion this, that the persons who renewed the certificate, should be a special class, and not simply medical men taken from here, there and everywhere? *A.* Quite so. I think they ought to have some special evidence of their fitness for their difficult duty.

Q. You would have the ordinary certificate left as it is for the first confinement, but that when it is renewed, it should be renewed by people possessing a special knowledge of lunacy? *A.* I think so, at least skilled physicians. I do not think the special knowledge of lunacy is so important as being a well educated physician.

Q. People in very considerable practice? *A.* Yes, the leading men in each district.

Dr. Robertson declared that he never knew of one wrongfully detained, even in pauper asylums, but he

thought more of the private patients ought to be in public asylums. He stated the fact that in Scotland 80 per cent of the private patients are in the chartered asylums, while in England there are only 48 per cent. His suggestion as to the renewal of certificates, involving a periodical review of each case, certainly deserves consideration as bearing upon this question of too long detention; but the continuous history provided for in the case-books, and their accessibility to the visiting commissioners *ought* to meet the case. He also thought that it is a great shock for patients of the upper classes to be sent to public asylums, when they could be taken care of by some medical man who has but three or four under his charge. We supposed that this alternative was already open in the licensed houses. It appears, however, that chancery visitors have no control over private asylums, and can only make recommendations to the committee of the lunatic, who is not obliged to accept them, (950). Dr. Robertson is also in favor of the Scotch system of boarding out harmless chronic patients, and speaks highly of Kennaway, a sort of imitation of Gheel, and he believes that one-third of the patients now in asylums would be better out, as not really "dangerous to the public," (1,055). He quoted from Dr. Maudsley's "Pathology of the Mind," a passage sustaining this view, (1,057). Of course this is practicable only where friends or relations are able to pay for their private care, or are ready to accord such care themselves. On the general question, however, Dr. Robertson summed up his evidence as follows:

Q. Are you decidedly of opinion that the safeguards against the improper admission and detention of persons in asylums, hospitals and licensed houses are practically sufficient, and that a more complicated system of checks would do more harm than good? **A.** Yes, decidedly.

Q. You would put it that at long intervals, and in rare cases, mistakes as to people's sanity would necessarily occur? A. Yes.

Q. But not more frequently than in cases where innocent people are arrested, tried, and even convicted? A. No, certainly; about the same, I should think.

Q. In fact, the same fallability of judgment which affects the one affects the other? A. Exactly.

Dr. Crichton Browne, another of the Lord Chancellor's visitors, disagreed with Dr. Robertson in several particulars. He believes abuses are more likely to occur in private houses than in public or private asylums, and does not at all believe that one-third of the present patients in asylums could be boarded out. He would have dispensaries attached to asylums, for persons threatened with first attack or relapse, for their immediate treatment. He made the following very clear and satisfactory statement of his experience as to admissions and detention:

Q. Is there anything else you wish to state? A. I may say I have admitted upwards of 5,000 patients into a public asylum, and have had myself to certify them, and I do not recollect one case in which a person had been sent fraudulently, or out of malice or ill will. Out of that number I have had at the end of the week to certify perhaps ten or twelve as "not insane;" as having shown no symptoms of insanity during their residence in the asylum. In all those cases, when I have inquired into them, it has been an error of judgment that has led to their confinement, or there has been a transient attack of insanity when the certificate was signed, and that has subsequently passed away; there have been no symptoms of madness in the asylum, consequently I have certified "not insane," and the patient has been immediately liberated. A more considerable number of patients I have been unable to certify at the end of seven days. They have been insane at the period of admission, but rapid recovery has taken place. Sometimes the mere fact of removal to the asylum, and the altered circumstances, induce recovery. I have seen reason restored within a few hours of admission, and those cases were certified as convalescent, after an attack of insanity, and were discharged after

a very short period. I have heard the allegation made that there has been a fraudulent intention or malice on the part of the relatives in shutting up the patient, but I have never been able to make out a case in which that was substantiated.

Q. Is it your opinion that in private asylums patients are kept longer than they ought to be after cure? *A.* My colleagues, who have had much more experience than I, hold that belief. I can not say that I have myself come upon a case officially. When practicing as a physician I saw one or two cases in private asylums in which convalescence was, to my judgment, unnecessarily protracted, but I attributed that to an excess of caution rather than to a discreditable motive.

Q. Is it your opinion that the credit of an asylum and its character for frequent and rapid cures would be more valuable than the extra profit gained by keeping the patient unduly long? *A.* Quite so; and the larger the asylum is the more does that operate. Where there is only a single case, or a few cases, it might be of great importance to retain them; but in a large asylum the proprietor has more interest in the character of the establishment than in the detention of any one case.

Dr. Browne thinks the existing safeguards are sufficient, and further checks would do more harm than good. He also states that about 20 per cent (no more) of the insanity of the country is due, directly or indirectly, to intemperance. From Dr. Bucknill's testimony we select the following points:

Q. You have traveled a good deal in America, and examined the state of things there, can you tell us what the American law is with regard to the admission and detention of patients in asylums? *A.* It varies in every State. I have not yet been able to get a reply to letters of inquiry which I have written, but I hope to be able to give you information on that point. A good deal of change has taken place quite recently. The State of New York seems to have made the best change. There, the certificates before the year before last could be signed by any two men, calling themselves medical men. The new law requires that they shall be qualified medical men, and that they shall also have a certificate from some judge of a court of record, to whom they are personally known as

competent for their duties, so that in that way an attempt is being made to create a class of medical men who understand something about insanity, and are capable of giving certificates.

Q. If you made an alteration with regard to the person signing the order, do you not think it would be a proper provision to make, that the person signing the order, or some friend or friends on his behalf should be compelled to visit the patient in the asylum or licensed house, within say three months of his reception?

A. Yes, I think so; I think it ought to be done. I see that in Lord Shaftesbury's evidence, which is most full and valuable, before the old committee of 1859, he lays great stress upon the hardship which lunatics suffer from the neglect of their friends, when they are once in an asylum. The committees of chancery patients are expected to visit their charges once in every three months; and it would be a proper regulation, I think, that the person who signs the order for the admission of a private patient into a private asylum should be required to visit at certain intervals.

Q. You said the cases of sane persons being improperly confined, or improperly detained, were exceedingly rare, as far as your experience went? *A.* Yes.

Q. Your experience extends over how long? *A.* Thirty-two years altogether, officially in a county asylum, and as the Lord Chancellor's Visitor.

Q. During that period, how many cases can you call to mind; how many have come under your cognizance? *A.* I can remember five cases as Chancellor's Visitor; one of those had escaped before I examined him.

Q. Do you find that patients after they are discharged, are in the habit of making complaints to the visitors or to the board? No, very rarely. There are a class of patients who are never quite insane and never quite recovered, who make complaints as long as they live after they have been put into an asylum, but there are not many of them.

Q. In cases of the recovery of a patient, do you find that there is a sense of injustice in their minds with regard to their detention in the asylum? *A.* I am afraid that is not very infrequent.

Q. Do they generally admit that it was a good thing for them to have been there, or do they generally suppose that they might have done quite well without having gone there? *A.* It will vary very much with the asylum in which they have been placed.

If they have been placed in an asylum where they have been treated as friends, and they have found it a cheerful, pleasant home, feelings such as you describe are not likely to arise. In an asylum of a different character, where there has been a strict discipline, and they have had a routine life which has been very irksome to them, it would be otherwise.

Q. Have you considered whether easy discharge from asylums would tend to the more frequent admissions of patients in the early stages of the disorder, and to the early treatment of the disease?

A. Sir James Coxe has clearly pointed out that not only the highest percentage of cures, but the shortest duration of treatment in Scotland is found in the Renfrewshire asylums, which are parochial asylums in which the inspectors of the poor can put a patient on the outbreak of insanity, without any difficulty, and can also remove him without any difficulty, whatever. He points out that the authorities of asylums may perhaps unwittingly increase the indisposition to place patients in asylums by throwing impediments in the way of their easy removal from asylums. I take it that the succession of events which Sir James points out is this, that you get easy discharge from these Renfrewshire parochial asylums; therefore you get early admission; therefore you get early treatment, and a much larger percentage of cures effected in a shorter time.

Dr. Bucknill thinks some restrictions should be imposed as to the person allowed to sign the order, and complains of too much power given to committees and persons signing orders to disregard advice of medical officers, and to obstruct discharge, even when expedient for the patient, making great delays in reaching the chancellor or his deputies or the commissioners. He favors the Scotch plan of making the certificates terminable and renewable.

As to the practice in Scotland, Sir James Coxe testifies:

Q. What provision is there for taking patients out of custody, or detention, and restoring them to liberty? *A.* In the original Lunacy Act, the only person who could take patients out of asylums was the sheriff. The sheriff had, and still has the power,

upon receiving certificates from two medical men that the patient had recovered, or that the patient was in a state fit to be discharged, to order the removal of the patient. A like power was given to the commissioners, but restricted to recovered patients. They could not order any unrecovered patient to be taken out of an asylum. Of course, the party who places a patient in an asylum can take him out at any time.

Q. Without the leave of the superintendent? *A.* Unless the superintendent certifies that he is in a dangerous state.

Q. Supposing the superintendent considers that the patient ought not to be let out, and the relations do not want him to come out, but still he is sane, in such a case as that what chance is there of the patient being taken out? *A.* He would appeal to the commissioners at their visits, and if they saw reason to think that he was sane, they would send two medical men to examine him; it is a frequent procedure with us. The difficulty with us is that we seldom get certificates of complete sanity, and then we fail to get the patient out.

Q. Unless you get a certificate of complete sanity? *A.* Yes; they may appeal to the sheriff, but they seldom do that. I scarcely remember a case of such an appeal to the sheriff. There are difficulties in the way, chiefly of a pecuniary character.

Q. Then does the patient remain in the asylum? *A.* Yes.

Q. Though he is an improper person to be there? *A.* He is not, perhaps, an improper person to be there; but he is a person who might be out. It is difficult to say exactly what is a proper person to be in an asylum; there is statutory reason for his detention.

Q. It is the case, is it not, that when a patient has arrived at a certain point in cure, detention in the same asylum is bad, and that he ought to have a change? *A.* A change is very frequently of great advantage to him.

Q. You can not compel it? *A.* We can not compel that. Several of the asylums have country houses; they have houses in the country where they send certain of their patients for a change. We often have an opportunity of recommending the friends of private patients to give them a change. Sometimes we recommend the inspectors of poor to give a change to a pauper patient; they generally do it.

Q. Do you ever discharge patients on probation? *A.* Yes, very frequently; generally before giving their final discharge. It is a test to see how they get on amongst their friends in private dwellings.

Q. At the end of that time can they be received without a fresh order? *A.* The discharge of a patient is granted for a certain time not exceeding twelve months. It may be for three or six months, and any time within the limit for which the discharge has been granted, they may be sent back to the asylum; just taken back, and they are admitted without any forms at all.

Sir James hardly endorses the necessity of immediate asylum treatment in all cases where a person has the means to obtain other kinds of treatment, such as travel, &c. He is very strong against the practice of admitting habitual drunkards again and again, and did not know of an instance of permanent cure of such a patient. He believes in the boarding out system for insane, though not in "colonies," where they are herded together. He has never known of a case wrongfully committed or detained after full recovery.

On this whole subject of the possibility of wrongful detention, we suppose that the contingencies can not be better expressed than in the following answers of Sir James Coxe.

Q. With reference to the protection by visits of the commissioners, or medical men, I suppose there are many cases where a man might be insane, although upon a visit and conversation with him, no symptom of insanity would appear? *A.* Yes.

Q. Therefore, to some extent, persons paying such visits are guided, I presume, by the statements they receive from the superintendents of the asylum? *A.* Yes, they must be, to a certain extent. When we send medical men, we often get a reply to say, "We had a long conversation. We observed no symptoms of insanity, but from what we were told by the superintendent, and what we saw in the case-books, we are of opinion that the patient is still insane, and therefore we decline to grant certificates of sanity."

Q. So that if you had a case of an unscrupulous superintendent who, for his own purposes, was seeking to detain a sane man, it would be possible for him to do so, notwithstanding the visits of the commissioners, or the visitors? *A.* I think the commissioners would satisfy themselves, without difficulty, in such a case as

that. If such a man came up and appealed, I do not think they would be readily convinced that he was insane. We have no power of liberation ourselves, and if we send medical men, and the medical men choose to take that view, and to be guided by the superintendent, then the patient can not get out.

Q. I am not saying what alteration could or should be made, but the visits which are made from time to time are not a complete protection against a person being improperly detained if the superintendent of the asylum were unscrupulously intending to detain him? A. No, but practically, I think it is. I do not think there is any great risk.

Dr. Harrington Tuke, of Chiswick Manor, a private asylum, (2,554), holds that the rate of cure is higher in private asylums, with a medical head, than in public asylums, and says there is more of domestic care and association for convalescents, (2,548). He also scouted the idea that patients were sometimes prepared by drugs for receiving visitors. The average in private asylums is about twenty-three patients to each physician. As to the irksome confinement in asylums, and the difficulty of sufficient employment, Dr. Tuke very sensibly says, "If a man is suffering under a disease he must suffer what the disease entails upon him, and the only thing is to get him well as soon as we can."

Dr. Nugent, one of the two inspectors of asylums in Ireland, gave a description of the general arrangements in criminal asylums in that country. Commitments are restricted to the greater crimes, lesser offenses being often only an evidence of the insanity. Patients have free access, by correspondence, to the inspectors, who may call in a consulting physician, and discharge a patient if they see cause, (2,728). The number of lunatics in Ireland, including paupers, is 18,100; 680 in private asylums. It is because public asylums are crowded with chronic and pauper cases, that the statistics of cure compare unfavorably with private asylums,

when generally only recent or curable cases are taken. Dr. Nugent knows of no cases of improper commitment or wrongful detention.

In the cases of Mrs. Lowe, Mrs. Petschler, Rev. W. A. O'Connor and others, which were gone into on their own testimony, it came out clearly enough that there was marked insanity in each one, but it also came out that the signer of an order is practically omnipotent, and that the person who places a patient in an asylum may prevent any access to him or her by third parties, other than the commissioners or inspectors, without his consent.

Dr. Maudsley would abolish that clause in the law by which a medical superintendent can, in any case, prevent the removal of a patient by certifying that he is "dangerous," and Dr. Robertson believes that there should be an independent physician appointed as visitor to each private asylum, to be responsible to the Commissioners. Dr. Blandford, however, does not agree with this, except as it is meant to increase the number of commissioners, (7,415). He testified that as a proprietor of a private asylum he was more led to yield to pressure of friends to discharge patients, who certainly would be kept longer in a public asylum.

Upon a review of the whole evidence, which indeed goes into every detail of treatment and asylum administration, as well as the question of safeguards to personal liberty, the conclusion drawn is, that the only possibility of unfair dealing lies between the party placing a person in confinement and the medical superintendent of the institution. Experience of facts shows that fraud and collusion, even in this state of things, rarely, almost never occur. Its absolute impossibility might be secured, as it is by the law of the State of New York, by the interposition of a magistrate's author-

ity, between the party sending the patient and the authorities to whose custody he is committed. And yet Mr. Palmer Phillips, one of the commissioners in lunacy, very decidedly prefers the law should be left as it is in England, believing that the best safeguard is the individual liability of the person himself, at whose instance any one is deprived of his liberty on the ground of insanity.

Q. You do not think it would be a good plan to try to assimilate the English system to the Scotch system, that the relation, or whoever the party was who wanted the patient shut up, should petition some public authority for the order? A. My own idea is that if you substitute any magistrate or official person as the party to sign the order, it will be most mischievous to the liberty of the subject, and very prejudicial to the alleged lunatic, for this reason; there is, I think, no greater safeguard for the due performance of a duty than individual, personal responsibility. Such responsibility, if it is not duly exercised, a jury will visit with damages, and in cases of false imprisonment juries give very heavy damages. At the present time the responsibility is such that very many decline to take it upon themselves for the benefit of the lunatic, even when his benefit loudly demands it. I think that this safeguard is very well supplemented by certificates and reports, and by visits by the commissioners and others. If you allow a magistrate either to sign the order or to countersign the order, you will at once destroy all the responsibility of the relative or other person. If a person is falsely imprisoned under a magistrate's order there can be no remedy. If the magistrate has acted *bond fide* he will be relieved from all responsibility; he can not be visited with a verdict for damages, and there will be no remedy for the lunatic. Besides, the magistrate will become simply a ministerial officer in the matter, and will be guided, if not absolutely, to a very great extent, by the certificate, so that really it will come to this, that the only safeguard will be the certificates. The great safeguard now is the responsibility of the individual who signs the order.

We have purposely refrained from bringing into this analysis, the evidence of Lord Shaftesbury, it being

of sufficient extent, interest and value to furnish the materials of an article by itself. Lord Shaftesbury has been on the Lunacy Commission, for about fifty years, and its permanent chairman since 1845, and thus has been witness and participant in all the vast improvements that have been made during that period in the asylum system of the world. We are sure that we shall be justified in giving separate and special attention to the views of this veteran in all that pertains to insanity.

THE STRUCTURE OF THE VESSELS OF THE NERVOUS CENTERS IN HEALTH, AND THEIR CHANGES IN DISEASE.

BY THEODORE DEECKE.

IV.

We proceed to the description of the vascular arrangements in the central grey ganglia of the brain, including the endyma of the ventricles, the internal capsule, the commissura beseosa alba, the laminæ septi lucidi, the external capsule and the claustrum. It is well known that the central ganglia are, more frequently than other parts of the cerebrum, the seat of lesions of the vascular system; that intracephalic hæmorrhages are, in general, much more common in these centers than in the peripheral parts. It may, however, be remarked that this does not hold in reference to the brains of the insane. This frequency of hæmorrhages is unquestionably largely influenced by the mode of arterial supply in the parts mentioned, a fact to which Duret, Heubner and others have called our attention. The arteries or the arterioles, which enter these masses, originate directly from the main trunks at the base of the brain. They are smaller in number, but larger in diameter than those which penetrate the grey cortex of the convolutions. They are terminal arteries in the strictest sense of the word, as they break up entirely into capillaries, which are, likewise, of considerably larger transverse diameter than those in the peripheral ganglia. This mode of arterial supply isolates the central masses almost entirely from the cerebral periphery. The area of circulation is, therefore, here much

less extended, the pressure of the blood higher, and, aside from the greater capacity of the capillaries, there exists no other provision to counterbalance deviations from the normal supply of blood which result from an increase or decrease in the action of the heart. These conditions are evidently favorable to arterial ruptures. On the other hand, however, it should not be forgotten that the vigorous development of the capillary system must facilitate absorption. It also affords less danger of the setting in of inflammatory changes by the diapedesis of the white corpuscles of the blood, a condition which has been exceedingly rarely observed in these parts of the encephelon.

The vascular arrangements in the cerebellum are much like those in the cerebral hemispheres. The connective tissue envelop is absent in the cerebellar convolutions, and the border layer of fibrous tissue is developed in a smaller degree. We distinguish three layers, viz.: the grey, the round cell, and the white layer. The ground substance of the grey layer, with its comparatively small number of nuclei, is of the same nature as that of the cerebral convolutions. It receives its prominent feature from the large number of the great ganglion cells at the border of the round cell layer, which send their ramifications, like the roots of a tree, through the whole thickness of the grey layer. They run out into branchlets so delicate that they can not be distinguished from the fine granular matrix in which they are imbedded. Anastomoses between the processes inter se, or between the processes of different cells, have never been observed by myself. One process, given off in the direction toward the round cell layer, penetrates this layer, and terminates in a nerve fiber in the white layer. There are two classes of arteries which penetrate the cerebellar convolutions.

The one, the smaller in size and the larger in number, arise from the second arterial network of the pia mater. They are, in fact, nutrient arteries, which run out into the finest capillary network in the grey layer. The second class consists of larger stems, which originate in the first network of the pia mater. They do not commonly send off any branches before they have reached the round cell layer, in which the branches break up into a capillary network almost as dense as that of the grey layer. The main trunk then enters the white layer, following the course of the fibers, gradually dividing and passing over into capillaries. Hæmorrhages in the cerebellum are not so very rare; they occur mostly in the white substance. The ganglionic layer, as it will be seen from our description, is as well protected against extensive or permanent derangements of the vascular system as the grey cortex of the cerebrum.

The vascularization of the pons Varolii, of the medulla oblongata, and of the spinal cord, is in accord with the distribution of grey and white matter in the same. The grey centers and tracts are exceedingly rich in capillaries. The pons receives its supply from the branches of the basilar artery, which likewise form two arterial networks in the pia mater; the upper part of the medulla oblongata from branches of the two vertebral arteries, and the lower part from the spinal arteries. The larger stems, which penetrate these organs, are located in the raphé, and accompany the roots of the nerves.

The part of the central nervous system which is undoubtedly the best protected against sudden and serious alterations in the blood supply, is the spinal cord. The two main arteries, the anterior and the posterior arteria spinalis, are of comparatively small

size. They originate from two branchlets given off at an obtuse angle from the two vertebral arteries, and are of about the same transverse diameter down to the filum terminale, where they diminish in size. The anterior spinal artery sends off branches at irregular intervals to the right and left. The posterior sends off, at regular intervals, branches of smaller diameter, which follow the posterior nerve roots. Both sets of branches communicate with the intercostal arteries. At the *conus terminalis* both spinal arteries are connected by anastomoses. In their course downwards they also form a separate network of anastomoses in the pia mater, from which the finest nutrient arteries enter the cord at a right angle. Others, of larger diameter, originating directly from the spinal artery and its branches, penetrate the substance of the cord following the tracts of the nerve roots.

It is evident that by these arrangements the greatest uniformity possible in the distribution of nutrient fluid is accomplished. On the one hand, there is an ample supply, since the main source—the vertebral arteries—considerably surpass the spinal arteries in diameter. On the other hand, the latter two are in their entire length almost of the same caliber, equally dividing their contents over the whole organ, while their final communication greatly adds to the uniformity of the blood pressure in all parts of the system. But, furthermore, the connections of this system with the intercostal arteries must serve as a regulator both ways, in an increase as well as in a decrease of pressure, and a compensation is effected before any changes in the nutrient system can possibly become noticeable. This holds good as well where there is a general hyperæmia as in cases of anæmia, so far as the quantity of the blood is concerned.

From the foregoing sketch of the vascular arrangements in the central nervous system, we draw the following general conclusions in regard to the plan of organization, as well as in regard to its effect. In the animal system—that is, in those parts of the nervous centers which are absolutely necessary for the functions of organic life—there exist ample provisions for the preservation of normal conditions; while those parts in which we locate the mechanism which is concerned in the manifestations of psychical phenomena are distinguished by arrangements which facilitate a return to the normal state when this has been disturbed. In a few words, therefore, the resisting power, in regard to affections arising in the vascular system, predominates in the former, and the power of reparation distinguishes the latter. It would be easy enough to furnish ample proofs of the correctness of this view. For the present we shall confine ourselves to those conditions of the vascular system of the nervous centers, which stand in relation to the phenomena comprised under the term “insanity.” And as these phenomena, from their primary stages, are invariably connected with affections of the grey cortex of the cerebrum, it would appear to be our main task first to consider the relation of these to the vascular arrangements. It is beyond discussion that, in all cases of mental disturbance, the vascular system is affected. These affections, however, may be of a secondary as well as of a primary nature. From this fact, therefore, we will have to make two sub-divisions, in the description of the changes which have been observed, namely: those which originate in the nervous centers themselves, arising through and in connection with the special mode and plan of organization which there exists; and those which are produced secondarily, developed from gen-

eral affections of the vascular system of the whole organism.

In regard to the normal, as well as to pathological conditions of the vascular system, we have to take into consideration three factors, viz.: a mechanical factor, dependent upon the physical properties of the vascular system; a physiological factor, dependent on the intervention of the nervous system; and a chemical factor, dependent upon the chemical composition of the blood. We have, first, the simple fact of the movement of a fluid in a system of elastic tubes, forced into them by the heart, a pump in constant action. This is a physical or a mechanical problem, and the phenomenon in itself is subjected to the same physical laws, or hydraulic principles, as are elsewhere valid in nature. But the effect, here, is modified, on the one hand, by energies acting upon the elastic tubes, which constantly alter their physical condition; on the other hand, by the peculiar, constantly changing constitution of the fluid which moves in the tubes. Supposing, therefore, the greatest possible constancy and uniformity of the propulsive power, the velocity of the current, as well as the pressure of the fluid in the system of tubes, will, at all times, be dependent upon the interaction of the three factors mentioned. But of these, apparently only two, the physiological and the chemical, are of variable magnitude.

The physiological factor, the influence of the nervous system, is directed to changes in the caliber of the vessels, and has become an object of wide discussion since the discovery of the so-called vaso-motor system of nerves, or, more correctly, of the existence of vaso-motor fibers, contained in the sympathetic, as well as in the cerebro-spinal nerves.

From a large number of physiological experiments it has been ascertained that the cervical sympathetic

especially, is the seat of vaso-motor fibers for the neck, the head, and, very probably, for the whole cerebro-spinal system. All vaso-motor fibers, as far as it is known at present, have, in common, one general center in the medulla oblongata, located above the upper decussation of the fibers of the anterior pyramids, in the antero-lateral section. It is represented, in its longitudinal extension, by a large, double wedge-shaped, and in transverse sections, elliptical, grey nucleus situated on both sides of the medulla, formerly known as Clarke's antero-lateral nucleus. Besides this, there is a series of sub-centers in the spinal cord.

The important office of this system of nerves is, in the way of reflex action, to maintain and to regulate the normal tone of the vessels by producing dilatation or constriction in the arterial system, and thus effecting changes in the general or local blood-pressure, and determining, according to the general and local conditions, an increase or a decrease in the flow of blood in the one or in the other direction. But a close analysis of the phenomena which follow a section or a stimulation of these nerves—the fundamental experiment by which, in the first case, a dilatation, in the second, a constriction of the corresponding arteries is produced—has shown that this simple conception does not hold for the explanation of all the facts which are observed, for the dilatation, which speedily follows the division of the nerves, disappears in the course of time, without the intervention of any other agent, and the vessels return to their normal caliber. And, further by local application, dilatation, as well as constriction, may be produced. This fact, of course, evidences that it is not solely the influence of the so-called vaso-motor system and its centers, upon which the tonicity of the vascular system depends, but that there exist

peripheral arrangements, conditions in the walls of the vessels themselves, which are capable of producing a similar effect, and by which the influence of the centers in the cerebro-spinal axis and in the sympathetic is modified.

The acknowledgment of these facts is but another proof of the functional reciprocity between the different constituents of the organism, their independence on the one hand, their dependence on the other. Under the normal state of equilibrium they generally do not come into view, but appear to be of the greatest importance in all pathological affections where this equilibrium is disturbed.

When we compare with each other the sensitiveness to the nervous influence, of the three components of the vascular system, we observe that the controlling power of the central nervous mechanism prevails in the arterial system, while the venous and the capillary system respond in a higher degree to local influences. This interesting fact, again, modifies the vaso-motor phenomena in the normal state of things, and far more, as we will see further on, in pathologically altered conditions.

As the second variable factor, which continuously acts upon the vascular system, we have announced, in the foregoing, the constitution and the chemical composition of the blood itself. This depends, for the most part, upon the interaction of this fluid with the different tissues of the organism, and upon their vital condition. Thus, we see the constant normal change in the constitution of the blood, from its arterial to its venous character, and *vice versa*, influence the velocity of the current as well as the pressure in the system. The amount of oxygen, or of carbonic acid, present in the blood, appears to be a most powerful stimulant for the nervous mechanism of the circulatory apparatus. An

increasingly venous character of the blood augments the action of the general vaso-motor center, and increases the blood pressure in the system, while the arterial character prominently affects the peripheral vaso-motor mechanism, by acting directly upon the walls of the vessels, and modifying the changes in the capillary and in the venous districts. Similar changes are undoubtedly produced by various substances accidentally introduced into the blood, or arising in the blood from natural or morbid processes. The chemical compounds originating, in the general and special change of matter, from the dissociation of the tissues and the amount of their elimination, by the function of the special excreting organs of the body, comes here into consideration. The differences in the relative amount of the albuminous compounds and of the saline constituents of the blood affect its flow; and, furthermore, the proportion between its organized elements and the plasm. The important influence of the nature of the organized elements, and the relative quantity in which they are present, upon the alterations in the current of the blood, is a matter directly accessible to observation, although it must be admitted that we know still very little of the character of the material changes which they produce in the anatomical constitution of the vascular ducts themselves.

Upon all the phenomena hitherto mentioned, we look from a physiological point of view. Changes and deviations from the normal, and their return, within certain limits, occur, and it is a general law of the teleological mechanism in organic nature, that the cause of changes or want, in the living organism, is, at the same time, the cause and incitement to satisfy the want; a self-regulating law in nature. But it can not be denied that the physiological conditions often fluct-

uate so near the border of pathological affections that they gradually pass over into them. They can, as such, however, only be recognized where they produce permanent changes in the structural constituents of the parts affected, palpable lesions, which require for their return to the normal state, the intervention of other agents, beyond the physiological remedial power of the organism, and either submit to the action of these, or terminate in a destruction of the histological elements involved.

There is no part of the organism which is more frequently subjected to changes, than the circulatory apparatus and of its components, the capillary system, in the highest degree. This system represents the channels for the distribution and the absorption of material, and is the means of communication between the external conditions of life and the life of the tissues in the higher organized beings. Thus it participates in all processes connected with the life actions of the different tissue elements, as well as with the specific functions of the organs, while its own function necessarily appears to be far more of a passive than of an active character. This is the more evident since the important question, whether the consumption of oxygen and the production of carbonic acid takes place in the vascular ducts by the action of oxidizable material, or in the tissues themselves, has been decided in favor of the latter view.

Nevertheless it must be admitted, that the endothelium, which builds up the capillary sheath, represents more than a simple membrane, and that in itself, it possesses properties which play a certain role in the interchange between the nutritive and the irritative constituents of the blood, and the products of the chemical processes by which the life action of the tissues is maintained. Aside, therefore, from the gen-

eral influence of the propulsive power of the heart, the condition of the capillaries is directly dependent upon : first, the pressure of the blood against their walls, originating from the constrictions and dilatations of the smaller arteries which empty into the capillary system ; secondly, upon the peculiar properties of their endothelium ; and, thirdly, upon the vital energy of the tissues themselves ; and we may add, upon the physical character of the tissues in which they are found.

It has already been remarked in a preceding article, that, according to simple hydraulic principles, the velocity of the blood-current in the capillary system, in general, must be exceedingly slow, aside from the increase of the peripheral resistance, caused by friction, and the normal tonus of the vessels. In the capillaries of the grey cortex of the human brain, for instance, it must be about a thousand times slower than in the aorta, at its point of origin. It can not exceed the one-fiftieth part of an inch, per second, and is probably considerably slower.

Now, we must keep in mind that the arterial system, in the normal state, is at all times overfull, and that it empties its surplus, continuously, into the capillaries. The more extended and delicate the capillaries, the greater the peripheral resistance and the higher the pressure will be in the arterial system, while in the corresponding venous system the pressure is lower, and the veins less full. When, on the other hand, the resistance in the capillary system is diminished, as in a condition of general dilatation of the capillaries, there will be a rise of pressure in the veins, and a gradual fall of pressure in the arteries. Both are physiological conditions, and they may be transient and readily compensated for by a temporary increase or decrease in the action of the heart, as

well as by the action of the peripheral or the central vaso-motor apparatus in the way above indicated. By some or other influence, however, these physiological conditions may become permanent, and pass over into true pathological states, either confined to a certain organ, or affecting the whole vascular system. In the first case they will necessarily lead to alterations in the capillary system, and secondarily, to changes in the nutrition and in the function of the organ affected; in the latter case to alterations in the muscular, or in the valvular mechanism of the heart.

It can be anatomically proved that such affections, referred to in the foregoing, which stand at the border of physiological and pathological conditions, and which lead to alteration in the capillary system, frequently occur, without having at the time of their occurrence visibly interfered with the nutrition, or the function of the organ thus affected. This, for instance, is especially the case in the brain, where, on the one hand, prominently in the grey cortex, conditions exist which are most favorable for the development of locally confined affections, and where, on the other hand, as it seems, no ample provisions exist for the removal of the traces of the alterations which have taken place. I, at least, have not yet dissected one adult brain, either from persons who died accidentally in apparent health, or from persons who had suffered from brain disease previous to death, which did not contain, in the one or in the other convolution, more or less marked evidences of gross alterations in the capillary system. These were represented by the presence of remnants of capillary vessels, which, at one time or other, by causes unknown, must have been cut off from the general circulation. They are found preserved, embedded in the cerebral tissue, forming rigid shrubs, of larger diameter

than the living normal capillary, with thickened, longitudinally striated walls. At the one end they show commonly a kind of a knobby dilatation, which, at one point, runs out into a long filament, probably the collapsed sheath of the unaltered portion of a capillary vessel. Frequently, but not always, they exhibit a slightly glassy appearance, and offer a great resisting power to the influence of acids and alkalies, as well as to ether, chloroform and alcohol. They are of a cartilaginous consistence, and I have never observed any alteration of tissue in their immediate surroundings. Aside from a little granular material, occasionally met with in the tubes, they seem to be filled with a uniform, slightly refracting substance, and the only theory in regard to their origin, which I can suggest, is that they are, as indicated in the foregoing, the remnants of occluded, dilated, and finally degenerated capillary vessels, which have become infiltrated with an inorganic compound, in combination with an albuminoid, which is indifferent to the chemical processes occurring in those parts of the living organism.

It remains to state that the principal seat of this alteration of the capillaries is the grey cortex of the cerebrum; next to this they are occasionally met with in the central grey ganglia, and in the pia mater. In the white layer, in the pons Varolii, the medulla oblongata and the spinal cord they must be exceedingly rare, if they ever occur. By this, of course, I do not mean the occlusion of capillaries *per se*, but the peculiar processes which follow the occlusion, and which lead to the formations above described. In over three hundred examinations of the portions of the brain mentioned, and in twenty-one of the cord, I have never met with a single case.

This is the first material and permanent change in the vascular system of the nervous centers, to which I call attention. Although, in its origin standing at the border of physiological and pathological conditions, it presents in its results, a lesion of true pathological character. In proportion to the extent in which the lesion is found in any given case, it should be taken into consideration, as it is; at all times, an evidence of disturbance in the capillary circulation, which is of significance in an etiological point of view.

[TO BE CONTINUED.]

SARCOMA OF THE DURA MATER.

REPORT OF A CASE, WITH ILLUSTRATIONS.

BY EDWARD N. BRUSH, M. D.,

Assistant Physician, New York State Lunatic Asylum.

The following case is here reported, both on account of its clinical and pathological significance. In March, 1875, I was invited by my friend, Dr. E. C. W. O'Brien, of Buffalo, to see Mr. S——, who had sought advice concerning a tumor situated just anterior to the junction of the sagittal and lambdoid sutures. The patient was a gentleman aged fifty-six, of clear, ruddy complexion, large frame and somewhat inclined to obesity. For some years he had been occupied as librarian in a large public library, but had recently assumed charge of some mining interests. The tumor was about the size of a small walnut. It was quite movable under the scalp, and pretty firm pressure and free handling gave rise to no indications of pain or uneasiness. Its growth had been slow and unattended by pain. From these facts, and from the presence of what was apparently a similar growth, though of several years' standing at the outer and upper margin of the left orbit, an ordinary sebaceous tumor of the scalp was diagnosed, and its removal suggested. Not being able at the time to leave his business, the patient preferred to postpone the operation until he could take a short vacation in the summer. I saw nothing more of him until February 13, 1876, when I was requested to assist in the removal of the tumor, which I then found had increased rapidly in size, and was therefore somewhat inconvenient. I was quite surprised on carefully examining the patient, at the size and shape which the

tumor had attained. It measured about four and one-half inches in one diameter, by about six in the other, and projected from the cranium some three inches at the most prominent point. The tumor was covered by the dense, shining scalp; was irregularly nodulated, and but slightly movable. The slight mobility was accounted for by the extreme tension of the scalp. The tumor was not painful on pressure, and the patient allowed pretty free manipulation without complaint; it did not pulsate, was soft and somewhat elastic. Some portions of the exterior were red and vascular, and attracted attention and comment.

After due consideration it was decided to attempt to remove the tumor, and to proceed as far as possible by enucleation, after the first incision. Anæsthesia, with ether, being induced, an incision was made from before backwards, over the most prominent part of the tumor. Attention was at once attracted to the unexpected thickness and great vascularity of the scalp. The tissues through which the knife passed were dense, and the vessels much enlarged. When exposed, the tumor showed what was apparently a containing sac or cyst-wall. I at once passed my finger into the wound, and commenced the process of enucleation. The growth was easily separated from the scalp, but I was surprised on approaching its base to find that my finger did not pass under it and come in contact with the cranium, but seemed to follow out the covering membrane, which apparently spread out in all directions upon the skull, and made it impossible to raise the tumor from its attachments. Thinking that I might possibly have mistaken a layer of fascia for the investing membrane of the tumor, this was ruptured with the nail, and the finger passed immediately down upon the cranium and thence under

the tumor. I at once recognized the fact that the finger had passed into the substance of the growth; that it was not sebaceous, and that beyond the membrane just ruptured, it had no retaining sac. Using the finger as a director the incision was enlarged in order that the tumor might be more easily examined, and the extent of its attachments determined. This done I passed my finger through the opening already made in the apparent covering of the tumor, down to its base. In doing so it came in contact with roughened and denuded bone, and in sweeping the finger under the growth to separate it from the skull I was startled by passing it into an opening in the cranium. A brief examination satisfied all present that the tumor either had its origin from, or passed into the cranial cavity, and it was decided to discontinue the attempt at removal. Before closing the incision, Prof. J. F. Miner was called in consultation. After a careful examination he expressed the opinion that the growth originated within the cranium, that it had eroded its way through the cranial walls, and that its removal was impossible. The incision was loosely drawn together, warm water dressings applied and the patient placed in bed.

On recovering from the ether the patient's mind was clear and active, pulse one hundred, respiration unimpeded, and he complained of but little pain. A portion of the incision healed by first intention, but the extensive separation of the attachments of the tumor, which had been made with the finger, destroyed its vitality, and in a few days, I was able to lift out a large portion of its most prominent part. After the removal of a few remaining shreds by suppurative process, a red protuberant mass, about the size of a walnut, was noticed at the bottom of the cavity; this mass bled easily and pulsated regularly. The pulse

never rose above one hundred and twenty, and frequently was as low as eighty. The discharge from the wound was profuse, and at times quite offensive. No chill or febrile stage was at any time observed. For four weeks the patient remained in this comfortable condition. Motion and sensation were at all times normal, and he continued to direct his business affairs as clearly as ever, and carefully arranged matters in view of his probable death.

On the morning of March 8th, Mr. S. noticed a loss of power and sensation of the right side. This condition gradually increased until it reached almost complete hemiplegia. The eyes were suffused, pupils contracted, face red, pulse rapid and bounding, temperature 103°. He complained of intense headache, was easily disturbed and restless when asleep, but at no time delirious, motion and sensation gradually returned, and on the thirteenth, were nearly normal. The headache was relieved by bromide of potassium, and the temperature controlled by quinia. From the tenth to the time of the death, the catheter had to be resorted to, to evacuate the bladder. On the twentieth, there was nearly complete *left* hemiplegia. At midnight on March 22d, I saw the patient, being hastily summoned in the absence of his attending physician, Dr. O'Brien. He was in a semi-comatose condition, respiration stertorous—twelve per minute; pulse, rapid and feeble. He could only be aroused with considerable effort, but would then make intelligent replies to questions. The coma increased steadily, and terminated in death in the forenoon of the twenty-third.

AUTOPSY.—The tumor projected from the upper back part of the head in the median line. Its base had a diameter of some six inches, and it projected about

three inches above the skull. In its center was a crater-like excavation, two inches in diameter, extending down to bone. Its edges were ragged, red and granulating, the sides grayish and sloughing. The weight of the tumor was estimated at one and one-half pounds. On section the pericranium was found to be elevated by the tumor. The scalp, though thickened, was separable from the morbid growth on all sides. On separating the tumor from the skull, the central portion of its base was found continuous with an inter cranial portion, through an irregular, ragged erosion in the cranial walls, with a diameter of from one and one-half to two inches. The eroding process had affected the border of the perforation for a circle of half to three-quarters of an inch breadth about it. This erosion is shown in Fig. one, representing the outer surface of the calvarium.

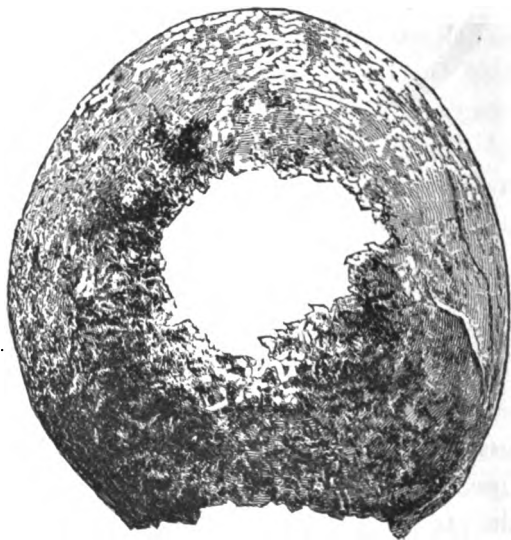


FIG. I.

Other portions of the bone covered by the tumor were more or less roughened. The inner surface of the calvarium showed the channels for meningeal vessels

deeper than common. The margin of the opening was rough and irregular, and its edges bevelled by the eroding process, as shown in Fig. two, showing that the tumor was originally wholly inter-cranial.

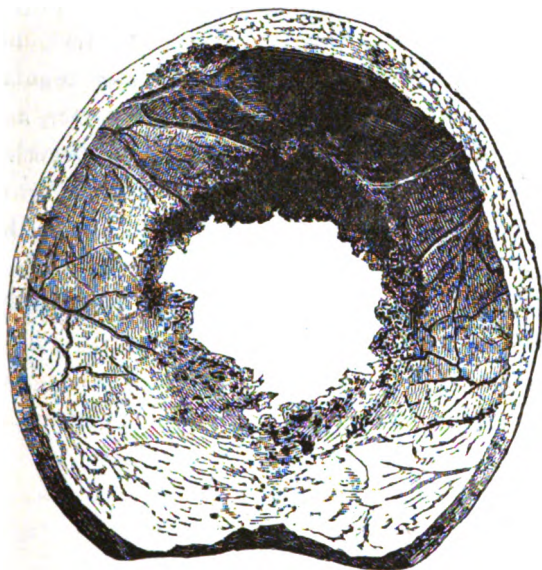


FIG. II.

The dura mater was thickened, non adherent; pia injected. The tumor arose in the falx cerebri, extending between the hemispheres for the depth of an inch and one-half. The portion internal to the skull weighed four ounces. The convolutions on either side of the median line were flattened by pressure, and marked depression was observed in the lobes of either hemisphere where the tumor had lain. They were, however, not involved in the new growth. On incision, an abscess, the size of a pigeon's egg, was found in the left posterior central convolutions. The brain was not subjected to microscopic examination. Sections of the tumor, placed under the microscope, showed it to be round celled sarcoma. The interesting features of this

case are the size and origin of the tumor, and the absence of all brain disturbance, until a short time prior to death, due probably to the early relief of pressure by perforation of the cranial vault. Growths of this character are recorded under various names, as fungus hæmatodes, fungus duræ matris, malignant tumor of the dura mater, etc. Gross mentions two operations for the removal of similar tumors, and Erichsen and Hamilton mention operative procedure as the last resort, advising enlargement of the cranial aperture, and careful dissection of the tumor from the dura mater. It hardly seems to me, that a full knowledge of the parts involved, would justify an attempt to remove a tumor of this character.

BIBLIOGRAPHICAL.

REVIEW OF AMERICAN ASYLUM REPORTS, 1878-79.

NEW HAMPSHIRE :

Report of the New Hampshire Asylum for the Insane: 1879.
Dr. J. P. BANCROFT.

There were in the Asylum, at date of last report, 276 patients. Admitted since, 73. Total, 349. Discharged recovered, 27. Improved, 23. Unimproved, 8. Died, 23. Total, 81. Remaining under treatment, 268.

Owing to a change in the fiscal year of the Asylum, the report covers a period of eleven months only. Of the admissions fifty-six per cent were chronic cases. It appears that only thirty-four per cent of all the cases under care during the year could be classed as curable, while sixty-six per cent must be regarded as past all reasonable hope of recovery. Of the twenty-seven recoveries eleven were from first attacks, and sixteen had suffered from one or more attacks. In view of this fact the Doctor comments upon the effect of habit, in producing a tendency to the recurrence of the disease, and upon the necessity of studiously avoiding every act and influence calling into activity morbid states. Another noticeable fact in recurrent insanity is the reproduction of the same features in the various attacks.

The number of cases of aged persons admitted, leads to the advice that, whenever practicable, such persons should be retained at home, and not subjected to the often injurious influence of breaking off the associations and surroundings there, for the new objects and

change of habits incident to life in an asylum. A record of improvements and renovation of wards, necessitated by long use, with a statement of projected changes, closes the report.

MASSACHUSETTS:

Twenty-Sixth Annual Report of the State Lunatic Hospital, at Taunton: 1879. Dr. J. P. BROWN.

There were in the Hospital, at date of last report, 579 patients. Admitted since, 173. Total, 752. Discharged recovered, 48. Improved, 73. Unimproved, 24. Died, 48. Total, 193. Remaining under treatment, 559.

Considerable attention has been paid to inducing patients to take exercise in the open air, and to labor upon the farm and grounds. The improvements in the buildings heretofore inaugurated have been carried forward towards completion.

Second Annual Report of the State Lunatic Hospital, at Danvers: 1879. Dr. CALVIN S. MAY.

There were in the Hospital, at date of last report, 222 patients. Admitted since, 653. Total, 875. Discharged recovered, 115. Improved, 72. Unimproved, 92. Died, 63. Total, 342. Remaining under treatment, 533.

The subject of causation receives prominent attention in the report. The want of regular and systematic occupation is first mentioned as a cause, and is denominated "*a fons et origo*, as well as a continuance of the disease, oftener than we are apt to think." "Large numbers of the insane are so because they lack systematic and regular occupation of mind and body. Indeed, I think they would outnumber four to one the cases where disease was the result of overwork." "Much

has been said of the overworked activity of Americans, as a permanent cause of the increase of mental disease. My observation teaches me this is incorrect." "The more I watch for immediate causes of mental perturbation, the more convinced I become that the indulgence of excesses connected with the appetite must be responsible for a large number of cases. The uneasy organization seizes often upon alcoholics as being frequently suggested as something discountenanced; the gratification of dealing with a contraband thing leads to an excess just as surely, and in the same proportion as the nervous unrest exists. A better morality will bring a better organization, inasmuch as the habits of thought upon life as a responsibility to be used for other than sensual enjoyment, leads to a restfulness of mind, and reliance upon something outside the physical condition and appetites."

It is not surprising that, with these views of causation, the Doctor should look upon employment as the panacea for the disease, and that no mention should be made of the more strictly medical treatment of insanity. The report of the pathologist, Dr. J. J. Putnam, of Boston, gives six post mortems as having been made during the year. In these the causes of death are detailed, and in two of them only is any note made of the condition of the brain. The subject of disposition of the sewage has received considerable attention, and the mode adopted is pronounced a success.

Twenty-fourth Report of the State Lunatic Asylum, at Northampton: 1879. Dr. PLINY EARLE.

There were in the Hospital, at date of last report, 429 patients. Admitted since, 106. Total, 535. Discharged recovered, 26. Improved, 28. Unimproved, 14. Sober, 1. Not insane, 1. Died, 23. Total, 93. Remaining under treatment, 442.

The finances are represented as being in a favorable condition. The Doctor continues to discuss the subject of the "Curability of Insanity." He shows the deceptive character of the statistical tables formerly presented, in asylum reports, to show the advantage of early treatment, both in an economic point of view, and in the larger percentage of recoveries. His conclusion confirms the result reached by Dr. Thurnam in his statistics of insanity, that "of ten persons attacked by insanity, five recover, and five die sooner or later during the attack; of the five who recover, not more than two remain well during the rest of their lives; the other three sustain subsequent attacks, during which at least two of them die."

Report of the Temporary Asylum for the Chronic Insane, at Worcester: 1879. Dr. H. M. QUIMBY.

There were in the Asylum, at date of last report, 375 patients. Admitted since, 47. Total, 422. Discharged improved, 7. Unimproved, 11. Died, 33. Total, 51. Remaining under treatment, 371.

The quantity and quality of the dietary, and also the proportionate number of attendants, are said to remain the same as when occupied by all classes of the insane, under the name of the State Lunatic Hospital. The proportion of attendants is one to every thirteen patients.

Forty-seventh Report of the State Lunatic Hospital, at Worcester: 1879. Dr. JOHN G. PARK.

There were in the Hospital, at date of last report, 509 patients. Admitted since, 147. Total, 656. Discharged recovered, 47. Improved, 45. Unimproved, 37. Not insane, 1. Died, 36. Total, 166. Remaining under treatment, 490.

The report is largely devoted to an account of the mode of utilizing the sewage adopted. This is represented by heliotype prints, and is pronounced a success by the authorities of the Hospital.

CONNECTICUT:

Report of the Connecticut Hospital for the Insane: 1879. Dr. A. M. SHEW.

There were in the Hospital, at date of last report, 481 patients. Admitted since, 163. Total, 644. Discharged recovered, 45. Improved, 33. Unimproved, 37. Died, 19. Total, 134. Remaining under treatment, 510.

The health of the patients has been good, and the number of deaths remarkably small. Of the nineteen, five were from general paralysis, and four from the decay of age, all of the latter being over seventy-eight years.

The Doctor urges upon the attention of the Legislature, the propriety of erecting a group of buildings for the quiet, harmless insane, in connection with the present Hospital. This plan was approved and recommended in the report of the commission appointed to consider the subject. The building proposed, was intended to accommodate 250 patients, and could have been contracted for, for \$120,000. This question of the care of the insane, naturally led to a consideration of the care and treatment of this unfortunate class in earlier times, and a comparison with the methods employed at the present day. A condensed history of insanity is presented, and the gradual growth of the present style of hospitals, and methods of administration.

The list of entertainments shows a diversity well adapted to instruct and amuse the listeners. Military exercises and drill are still kept up, and much proficiency

attained by the patients. Among the improvements reported, is the completion of the annex, used for the more disturbed class of women patients, and a new reservoir of some three acres, and a capacity of four and one-half millions of gallons.

NEW YORK:

Report of the New York City Asylum for Insane, Ward's Island:
1878. Dr. A. E. MACDONALD.

There were in the Asylum, at date of last report, 776 patients. Admitted since, 467. Total, 1,243. Discharged recovered, 38. Improved, 64. Unimproved, 26. Died, 126. Total, 254. Remaining under treatment, 989.

Dr. Macdonald reports steady progress in increasing the comforts of the patients—in the matter of food and clothing especially, the improvement in both quality and quantity being marked. The staff of attendants has been increased to seventy-four against forty-nine at the beginning of the year, thirteen doing night duty alone. Wages have been raised, and the efficiency of the staff multiplied. Overcrowding is still complained of, the buildings erected for 434 patients being occupied by 689. The office of Assistant Medical Superintendent has been created, and the staff of physicians connected with the asylum now numbers seven. The question of removal of the asylum to Long Island is quite fully discussed, and the reasons against such change presented at some length. The experiment of opening the wards of the Asylum for clinical instruction is reported to be a success, and the lectures given by the Superintendent have been continued.

Report of New York City Lunatic Asylum, Blackwells Island:
1878. Dr. W. W. STREW.

There were in the Asylum, at date of last report, 1,367. Admitted since, 430. Total, 1,797. Discharged recovered, 155. Improved, 49. Unimproved, 26. Improper subjects, 5. Died, 95. Transferred, 233. Total, 563. Remaining under treatment, 1,234.

The excess of patients over the capacity of the Asylum is 370. Much has been done during the year to improve the condition, and enlarge the capacity of the various buildings constituting the Asylum.

The number of attendants has been increased, and the dietary improved in quantity and quality. The question of restraint is discussed: the use of it is said to have been largely diminished, and such restrictions imposed as to render its unauthorized employment impossible. Passes have been granted to an average during the year of thirty-one patients, and the system is commended. A strong plea is made for some provision to give assistance to such of the friendless and penniless as recover, to enable them to support themselves till they can find employment. This field for philanthropic benevolence has been almost entirely overlooked. One person, however, has, during the year succeeded in placing several women patients, discharged recovered, from the Asylum, in places where they have, by their good behavior, repaid the kindness shown them. If the municipal institutions would adopt the policy of the State, no persons could be sent out in such a penniless condition. The law provides, see Sec. 26, Title 3, Chap. 446, Laws of 1874.

"No patient shall be discharged without suitable clothing, * * * also money, not exceeding twenty dollars, to defray his necessary expenses until he reaches his friends, or can find a chance to earn his subsistence."

PENNSYLVANIA :

Report of State Lunatic Hospital, Harrisburg : 1879. Dr. JOHN CURWEN.

There were in the Hospital, at date of last report, 426 patients. Admitted since, 147. Total, 573. Discharged recovered, 29. Improved, 31. Unimproved, 58. Died, 29. Total, 147. Remaining under treatment, 426.

Report of the Western Pennsylvania Hospital for the Insane, Dixermont : 1878. Dr. JOSEPH A. REED.

There were in the Hospital, at date of last report, 543 patients. Admitted since, 239. Total, 782. Discharged recovered, 63. Improved, 49. Unimproved, 29. Died, 42. Total, 183. Remaining under treatment, 599.

Owing to the non-completion of the new State Asylum, at Warren, this Institution is greatly overcrowded, as it contains two hundred patients more than its proper capacity. While speaking of the disuse of the airing courts in foreign asylums, the statement is made that none have existed in connection with this Hospital during the past sixteen years. Within the buildings repairs and improvements have been kept up. Walls and ceilings have been painted and frescoed, new furniture and carpets have been supplied as needed, and the previous standard of care has been fully met. Few changes have been made in the grounds or outside surroundings, for lack of an appropriation, which had been asked from the State.

VIRGINIA :

Report of the Eastern Lunatic Asylum of Virginia : 1879. Dr. HARVEY BLACK.

There were in the Asylum, at date of last report, 316 patients. Admitted since, 51. Total, 367. Dis-

charged recovered, 26. Improved, 1. Died, 17. Total, 44. Remaining under treatment, 323.

There were 198 applications for the admission of patients to the Asylum. Of this number 122 were necessarily rejected for want of room. The outlook is, however, more gratifying, as additional accommodations are being prepared in buildings which will soon be completed, at this and the Western Virginia Asylum, for 210 patients. Much inconvenience has been experienced from the decrease in the appropriation from the State, and still further from the neglect to pay the whole amount appropriated. A new water supply, sufficient for all the needs of the Asylum, has been provided, at an expense of some \$6,000. The Doctor urges the propriety of some provision by the State for pecuniary assistance, sufficient to pay, in whole or in part, for the support of certain of the chronic class, outside of the Asylum, among their friends, who may be unable to meet the expense of their maintenance. The use of alcohol as a cause of insanity, and its effect in producing neurotic disease in the individual, or in succeeding generations, is discussed at some length.

Report of the Central Lunatic Asylum of Virginia, (for Colored Insane): 1878-79. Dr. RANDOLPH BARKSDALE.

There were in the Asylum, at date of last report, 244 patients. Admitted since, 33. Total, 277. Discharged recovered, 34. Improved, 2. Died, 18. Total, 54. Remaining under treatment, 223.

This Institution has also been crippled from the reduction in the annual appropriation for the support of patients, and from the non-payment of the sum appropriated. By the aid of an unexpended balance of previous years, the actual indebtedness of the Asylum is only \$166.25. The policy of erecting additional wards to

receive all of the colored insane of the State from the jails, when they can be supported at less than half the present cost, is strongly urged. It is calculated that this would result in a saving of \$10,000 for the first year, and \$18,000 for the subsequent four years., the period for which the State has a lease of the grounds and buildings now occupied.

Report of the Western Lunatic Asylum of Virginia: 1879.

There were in the Asylum, at date of last report, 423 patients. Admitted since, 109. Total, 532. Discharged recovered, 43. Improved, 10. Unimproved, 4. Eloped, 1. Died, 26. Total, 84. Remaining under treatment, 448.

The report announces the death of Dr. R. F. Baldwin, the Superintendent, which took place on the 14th of November, 1879, after a protracted illness. "A man of ability and administrative tact, he united to the highest factors of a true manhood the gentleness and graces of a woman, rounded out into the highest type of the Christian gentleman." A short and condensed report of the workings of the Institution is presented by the Assistant Physicians, Drs. Hamilton and Fisher.

SOUTH CAROLINA:

Fifty-Sixth Report of the South Carolina Lunatic Asylum: 1879.

Dr. P. E. GRIFFIN.

There were in the Asylum, at date of last report, 331 patients. Admitted since, 162. Total, 493. Discharged recovered, 40. Improved, 4. Unimproved, 1. Escaped, 3. On trial, 9. Died, 61. Total, 118. Remaining under treatment, 375.

The most notable event of the year is the rapid increase of the population. There are forty-four more patients under treatment than at the same time last year. The question of future provision is prominently

forced upon the attention. An appropriation of \$5,000, made by the last Legislature, is still intact, and some material in brick and granite has been collected toward additional buildings. Some improvements have been made from current funds, and the financial condition is reported as favorable.

GEORGIA :

Report of the Lunatic Asylum of the State of Georgia: 1879.

Dr. T. O. POWELL.

There were in the Asylum, at date of last report, 742 patients. Admitted since, 209. Total, 951. Discharged recovered, 64. Improved, 28. Unimproved, 7. Eloped, 8. Died, 90. Total, 197. Remaining under treatment, 754.

The report of both the managers and Superintendent record the death of Dr. Thomas F. Green, for more than thirty-three years the Superintendent and Resident Physician to the Asylum. He died on the 11th of February, 1879, suddenly, from apoplexy, at the advanced age of seventy-four years. When he assumed charge of the Asylum there were but sixty patients in its fostering care. In the present large and flourishing charity he has left a fitting monument to the labors of a life devoted to the care and relief of the sick and unfortunate. The record of the improvements to the buildings, and the additions to the means of moral treatment, show considerable progress made during the year.

LOUISIANA :

Report of the Insane Asylum of the State of Louisiana: 1879.

Dr. J. W. JONES.

There were in the Asylum, at date of last report, 198 patients. Admitted since, 50. Total, 248. Dis-

charged recovered, 11. Died, 27. Total, 38. Remaining under treatment, 210.

The Institution labors under serious disadvantages. There is a lack of proper means of heating, and of lighting; of machinery in the laundry for washing and ironing; of means of amusement and entertainment; and the buildings are sadly out of repair. The number of attendants is entirely inadequate, there being one to every twenty-five patients, and no night watchers are employed. The wards are overcrowded, and so limited in number that an attempt at classification is almost impossible. For the erection of additional buildings, to carry out the original plan, 225,000 bricks were made during the year by the patients and employees, at a cost of less than two dollars per thousand. An appropriation is asked from the Legislature of \$20,000, for two years, for the cost of new buildings. The demands for admissions, which could not be met, has resulted in the detention of many patients in the jails and in the City Asylum, in New Orleans, which has been felt as a source of great local distress and inconvenience.

KENTUCKY :

Report of the Eastern Kentucky Lunatic Asylum, Lexington:
1879. Dr. R. C. CHENAULT.

There were in the Asylum, at date of last report, 531 patients. Admitted since, 151. Total, 682. Discharged recovered, 52. Under Laws 1876-78, 16. Removed, 13. Transferred, 12. Died, 38. Escaped, 2. Total, 133. Remaining under treatment, 549.

The report gives a long list of improvements made during the year, and of wants to be supplied in the future. A recommendation is made for the erection of a system of cottages, supplemental to the present Asy-

lum, at about one-third of the per capita cost, for the care of the chronic class of patients.

OHIO :

Report of the Longview Asylum : 1879. Dr. C. A. MILLER.

There were in the Asylum, at date of last report, 660 patients. Admitted since, 178. Total, 838. Discharged recovered, 57. Improved, 21. Unimproved, 17. Eloped, 2. Died, 55. Not insane, 3. Total, 155. Remaining under treatment, 683.

Report of the Columbus Asylum for the Insane : 1879. Dr. L. FIRESTONE.

There were in the Asylum, at date of last report, 850 patients. Admitted since, 364. Total, 1,236. Discharged recovered, 214. Improved, 45. Unimproved, 82. Not insane, 9. Died, 54. Eloped, 2. Total, 406. Remaining under treatment, 830.

Dr. Firestone has written a report of some forty-five pages, in which he has touched upon a great variety of topics, among them the care of epileptics, insane convicts, causation, heredity, existing causes, autopsies, treatment of the insane, chapel services, amusements, bequests. These are followed by the ordinary statistical matter, by the record of improvements and repairs, and of wants. From the last list there would seem to be much work to be done before the Institution can be said to be completed.

MISSOURI :

Report of the St. Louis Insane Asylum : 1878-79. Dr. N. DE V. HOWARD.

There were in the Asylum, at date of last report, 308 patients. Admitted since, 188. Total, 496. Discharged recovered, 35. Improved, 25. Unimproved, 22. Sober, 3. Eloped, 1. Not insane, 2. Died, 16. Transferred, 70. Total, 174. Remaining under treatment, 322.

WISCONSIN:

Report of the Northern Hospital for the Insane: 1879. Dr. WALTER KEMPSTER.

There were in the Asylum, at date of last report, 559 patients. Admitted since, 198. Total, 757. Discharged recovered, 65. Improved, 68. Unimproved, 43. Died, 35. Total, 211. Remaining under treatment, 546.

We quote from the remarks on causation, in which the generally received views are plainly and succinctly stated.

To resolve the tangled web of causation and determine what item is harmful and what item harmless to mental health, is a task that only infinitude can comprehend. It is impossible, under the most favorable states, to separate into elementary parts, all the minute circumstances leading up to a final change from a sane to an insane state; it is, indeed, often difficult to draw the line between these two conditions, and to say where one ends and the other begins, so subtle are the beginnings. It is not often that one grand catastrophe overtops mental health; it is the constant recurrence of unfavorable acts or thoughts, the steady disregard of healthful conditions, the accumulation of adverse surroundings which from selection or misfortune heap themselves upon the individual; the oft repeated disregard of the common laws of hygiene, ignoring temperance in all things, deviating from established principles either in thought or morals; in fact, any or all things which tend to lower vitality and produce disease, operate as a cause. Now, it is impossible to separate out from all the rest one factor which would be more likely to produce disease than its congeners, and if we could do so it would not affect the result. Each individual organism has its own peculiarities, its own weaknesses, and what might seriously retard healthy growth in the brain tissue of one person, might not so seriously affect the same tissue in another.

As in previous reports Dr. Kempster has treated of heredity and of education. The neglect on the part of educators to inculcate sound physiological principles, is considered a fruitful cause of the production of mental disturbance. In speaking of the importance of this kind of education, he says:

I would have everyone to know that health is paramount; that disease and degeneration may be avoided by adherence to a few simple hygienic rules; that it is courted when the rules are ignored. I would have them to know how to interpret nature's language; to know the law of their own being, and how to apply it to their environment. I would have them know that nature has fixed bounds which may not be overstepped; in short, I would have a multiplication table of health, which should be as sedulously instilled into the mind of a child as is its mathematical symbol; then we should have fewer doctors, fewer asylums for the mentally inferior, fewer criminals, and a higher, better, loftier, healthier people to battle with the problems of life. Let us have sound bodies, and we shall, in the main, have sound minds.

A system of education that falls short of instructing people how to develop the mental faculties in the proper order—neither over-feeding or starving them—and how best to maintain them in a state of health when developed, does not fulfill all the requirements, and leaves the individual in profound ignorance of those things which materially affect his own welfare and the welfare of society. The influence of the body upon the functions of the mind is conceded, but the concession has been wrung out of a bitter experience, bought at a price that the world can ill afford to pay.

Many very marked examples of the hereditary tendency to insanity are given, as having occurred among the patients admitted to the Asylum. These extend, in some cases, through several generations, and by their frequency, show how thoroughly the family stock is permeated with hereditary influences.

Improvements have been made during the year in the erection of a new laundry and wash-house, also of a new barn and vegetable cellar. The artesian well which has thus far furnished the water for ordinary purposes, is entirely inadequate in case of fire. A plan to obtain water from the lake is proposed for consideration of the Legislature. The financial affairs of the Institution are in a favorable condition, the current receipts being sufficient to meet all demands.

BOOK NOTICES.

The Brain and its Diseases. Part I. Syphilis of the Brain and Spinal Cord. Showing the part which this agent plays in the production of Paralysis, Epilepsy, Insanity, Headache, Neuralgia, Hysteria, Hypochondriasis, and other Mental and Nervous Derangements. By THOMAS STRETCH DOWSE, M. D., etc. New York: G. P. Putnam's Sons, 1879.

Syphilis of the nervous system remains, notwithstanding the labors of Lanceraux, Gros, Zambaco, Jacsch, and later, Broadbent, Hughlings Jackson, Buzzard, Heubner and others, one of the most promising fields for medical investigation and scientific classification. To this fact, doubtless, we owe the appearance of the work now before us, but we are sorry to say that it has added but little to the accurate and readable literature of the subject.

Dr. Dowse has divided his volume into eight chapters. The first of these treats of the "History and Nature of Syphilis." Concerning the history of syphilis he has little to say, contenting himself with a brief recital of the literary chronology of the subject. Of the nature of syphilis the author writes more extensively, and with more positiveness. His statements as to symptomatology and etiology are not such as will be readily accepted, and lack confirmation from experienced syphilographers. Concerning the initial lesion, Dr. Dowse declares that constitutional symptoms follow indifferently the hard and soft sore. While we are willing to admit that constitutional infection sometimes follows an apparently soft chancre, we think that the majority of careful observers will bear us out in the statement that this is the exception, and that the infec-

tion is to be explained by the supposition of a "mixed sore." The mooted question of unity and duality is yet to receive scientific decision. It may be decided that all venereal sores are of syphilitic origin, and thus establish the tenets of the unicists. But, admitting that soft chancre is in some way modified syphilis, there is certainly a duality in the kind of sores produced, and upon this the whole question turns. Dr. Dowse will find, if he observes carefully, that soft chancres, the chancroid of Clerc, appear with no appreciable period of incubation. The unmodified infecting chancre always has a period of incubation averaging some three weeks. The inoculation from the soft chancre, unmixed with syphilitic virus, is *never* followed by syphilis. Inoculation from the hard chancre, or, if the term hard is objected to, from the chancre borne by a person syphilitic at the time, and having a period of incubation is always followed by constitutional symptoms. The differences between the two sores has been compared to the differences between variola and varioloid, but no such analogy exists. Varioloid is capable of giving rise to variola; chancroid, or the soft chancre, never gives rise to syphilis, unless along with its virus, and hidden by the intensity of its local action has been implanted the syphilitic virus. This chapter is written with evident haste, and is marred by several inaccuracies and grammatical errors. For instance, in speaking of certain visceral changes appearing during the secondary stage of syphilis, he says: "If, at this time, we have pulmonary hæmorrhages and pneumonia—not so uncommon—I think we are justified in assuming that the *origo mali* is syphilis, the more especially as mercury rapidly cures it." The chapter is illustrated by a Woodbury-type of what is said to be syphilis of the rectum. As far as the picture shows anything, it

might as well illustrate any other pathological change of any organ. Dr. Dowse lays considerable stress—more, we think, than it will bear upon the importance of thickening and induration of the walls of the rectum as a diagnostic sign.

In the chapter upon Diagnosis the author summarizes, (p. 16), the conclusion reached in writing upon the pathology of syphilis, but by a strange method of arrangement this subject is not treated until the last chapter in the book, so that the reader is presented with the writer's conclusions before reading his argument. "There are two prime factors," he says, "which tend to induce syphilis to expend itself upon the brain and nervous system." The first of these is "an unstable condition of these parts from hereditary predisposition." "The second is due to an instability which is the result of previous inflammatory change, (either idiopathic or traumatic in its origin), or from molecular (molecular?) derangement, followed by want of due selective nutritive capacity in the nerve or connective tissue cells, by which their tonicity is impaired." In the same paragraph the author makes the somewhat positive statement, italics his own: "*I have clearly traced a cerebral syphilis where the exciting cause has been venereal excesses, over-study, mental anxiety, worry, and even fright.*" Dr. Dowse illustrates his remarks in this chapter by typical cases, and, with a few defects in expression, and some illogical conclusions, has given quite an instructive chapter upon diagnosis.

The chapter upon Syphilis of the Sympathetic Nervous System comprises but five pages, and presents nothing new or of value. The same may be said of the chapter upon Diseases of the Peripheral Nerves and Neuralgias, which occupies six pages. Following this is chapter five, upon Treatment. The remarks here

made are evidently based upon practical experience, but there is nothing novel in the advice given. The author deprecates the routine employment of mercury and iodide of potassium. His views in regard to treatment may be summarized: Support and sustain the patient, treat special symptoms that arise, and direct active treatment toward eradicating the syphilitic virus.

Following the chapter upon Treatment are chapters upon Hereditary Syphilis and upon Syphilitic Epilepsy. While both of these chapters are better written than the balance of the work, they each show evidence of careless composition and hasty generalization. Of epilepsy the author says: "I should hold that primary idiopathic epilepsies are more due to hereditary syphilis than they are to any other cause;" a statement which will not seem surprising when it is borne in mind that, of ten thousand patients under his care during seven years at the Central London Sick Asylum, the author says: "I have no hesitation in saying that three-fourths were more or less the subjects of acquired or hereditary syphilis." This chapter is marred by the introduction of wholly extraneous remarks, written in a grandiloquent style. For example, on page 88, the author writes, immediately after discussing the pathology of epilepsy: "What a discovery, says one, so-and-so has made; he has found out that there is force in a ray of light; that the rheophore of a battery, applied to definite parts of the brain, will cause a monkey to blink, wink or squint; to dance, hop, skip or jump; to phonate a falsetto or contralto; that a decapitated frog will swim with its head upon its back, under certain stimulus—that the movements of the heart are controlled by the pneumogastric nerve, and that certain mental aberrations, known as melancholia, dementia,

delusions, illusions, and so on, can be engendered at will by those drugs which determine vaso-motor action. What advances science is making! Quite so. The wars, even of the elements, must soon succumb to the control of man, and nothing will remain for him to do but devise means whereby he can walk upon the seas, float in the atmosphere, and propel himself at will a hundred miles an hour. And even were all this realized, where would man be? Just as far from the end as ever." In another place the author tells us that, "in fact, the scientific mind has, of late years, been swamped with psycho-physiological evidence of the functions of the brain and nervous system, which, although considered tenable to-day, are to-morrow scattered far and wide, leaving a barren but still fertile soil for new hypotheses and investigations."

The concluding chapter of the work is upon Pathology, but with an inconsistency which characterizes the entire work, and which is well illustrated in the order in which the chapters are arranged, the author wanders frequently from his subject, introducing, among other matters, "a few remarks upon the clinical aspects of aphasia." But even here he wanders from his subject, leaving the clinical to discuss the legal status of the aphasic subject, and telling when he is not a responsible being. Of over one thousand post mortem examinations the author remarks that he has been surprised to find in how small a number the disease "appeared to originate in the under layer of the periosteum of the endocranium." We are utterly at a loss to comprehend the meaning of the following remarks upon case XXV, page 108: "For instance, we had hyperæsthesia of the limbs, with marked functional automatic activity of the spinal cord, arising, doubtless, from congestion of the grey matter and antero-lateral columns. The grey mat-

ter, as it became invaded, so became functionally diseased, and we had transitory and migratory impairment of sensibility, sensation, and temperature. The posterior grey matter and columns were unhealthy, and to this may be attributed the perfect power of co-ordination. But, considering the amount of disease in the periphery of the anterior horns of the grey matter, one would have expected an equivalent of muscular atrophy; but this was not the case, owing, in all probability, to the unstable dynamic condition of the grey matter of the cord generally." Dr. Dowse asserts that syphilis is "the cause of at least two-thirds of the general paralysis leading to dementia we meet with in this country, (England)." He does not evidently—and in this the cases reported by the author sustain us—recognize any difference between dementia paralytica, due to syphilis, and to which Foville, in a recent article, has applied the term pseudo-paresis, and true paresis the so-called general paralysis of the insane.

There are in this little work many good things, but they are hidden under a mass of faulty construction and illogical reasoning. There are many proof errors, and the illustrations serve, in most instances, to do anything but illustrate the text. We hope that succeeding parts of this work, when published, will be written with greater care.

Transactions of the American Medical Association: Vol. XXX.

This volume, which is one of the largest published by the Association, contains the proceedings of that body, at the meeting held at Atlanta, Ga., May 6th, 7th, 8th and 9th, 1879.

Following the minutes of the meeting is the address of the President, Dr. Theophilus Parvin, of Indianapolis. Dr. Parvin speaks with his usual elegance of

style, and presents an address worthy the Association and the author. Next in order to the President's address are the minutes of the Section on Practical Medicine, Materia Medica and Physiology, and the address of the chairman of the section, Prof. Thomas F. Rochester, M. D., of Buffalo, N. Y. In this address Dr. Rochester, after discussing the subjects of epidemic pestilential diseases, and their prevention, including quarantine, takes up the advances which had been made during the year in materia medica and physiology, and presents a concise and valuable resumé of these topics. The papers read before the section were all of interest and some of practical importance.

The address on Obstetrics and Diseases of Women and Children, was delivered by Dr. E. S. Lewis, of New Orleans, La. Dr. Lewis opens his address by a reference to the employment of *Abdominal Palpation* in obstetric diagnosis, and in the correction of malposition of the fœtus, a procedure recently recalled to the notice of the profession by Dr. Pinard, (*Annales de Gynécologie*, December, 1878). This is not a new diagnostic or operative measure, having been presented to the profession by various writers, under different terms, as external version, diagnosis by manipulation, etc., and its claims urged with more or less persistency. Following this the speaker alludes to the *Antiseptic Management of Labor*, and next in order, to *Puerperal Fever*, a subject which derives much interest when taken in consideration with the preceding. Following these, which are the more interesting topics considered in the address, Dr. Lewis passes in review the advances in obstetrics and gynecology made during the year. In the proceedings of this section Dr. Battey has an interesting report of a case of *Tubo-ovarian pregnancy*, with operation, followed by death. Dr. Cutter gives the

results of *Electrolysis of Uterine Fibroids*, but little of importance is to be gleaned from it, the author reserving the more positive conclusions for a subsequent report. A paper on the *Stem Pessary* by the same author follows. These comprise all the papers presented to the section. Other topics of interest to members of the section were discussed, the proceedings of which seem to have been below the usual standard.

The Section on State Medicine was fortunate in having for its chairman, Dr. J. S. Billings, of the United States Army. This section and the one on Medical Jurisprudence, Chemistry and Psychology has been united. In the proceedings of this section we notice appropriate resolutions upon the death of the late Dr. William M. Compton, formerly Superintendent of Mississippi State Insane Asylum. During one of the sessions of the section, a series of resolutions was presented by Dr. S. E. Chaillé, which was transmitted to the General Association, with the recommendation of the section for adoption. These resolutions look toward some radical changes in the plan of the Association. They look, first, toward placing State, District and County Medical Societies, more fully under the control of the National Association, requiring from these societies certain specified annual reports or returns. Second, the resolutions contemplate the substitution of a periodical medical journal for the present annual volume, after the example of the British Medical Association. And third, certain changes in the election and eligibility of members of the Association. The resolutions were adopted, and Drs. S. D. Gross, N. S. Davis, Foster Pratt, A. N. Bell and Alonzo Garcelon, were appointed to take them into consideration and report at the next meeting.

The proposal to publish an official Journal of the Association may not be carried into effect, but we would suggest that something be done to decrease the ponderous size of the annual volumes, and to increase the intrinsic value of the material published. The address of Dr. Billings is replete with valuable facts and suggestions, some of which have an intimate bearing upon the approaching U. S. Census.

In this volume are published, for the first time, the minutes of the Section on Ophthalmology, Otology and Laryngology, and the papers read evince the propriety of organizing this section. Dr. Moses Gunn, of Chicago, the chairman of the Section on Surgery and Anatomy, discusses in his address the subjects of supuration, the antiseptic system of Lister, and kindred topics, and presents to the association and surgeons generally some food for reflection. The papers before this section are carefully prepared, and in the main creditable to the Association. We hope that the time will come when the fact of a paper having been read before the American Medical Association will be *prima facie* evidence of its intrinsic merit; in other words, when a more strict censorship will be exercised over the contributions to the transactions.

The prize essay embraced in this volume is by Dr. Allan McLane Hamilton, "On Certain Forms of Primary and (local) Secondary Degeneration of the Lateral Columns of the Spinal Cord, with Especial Reference to an Infantile Rare Form." This article is illustrated by drawings of cases and sections of the cord. One of the latter, colored, fails to show the pathological condition in a degree sufficiently plain to make it of great value. The essay is well written, and the conclusions drawn with evident care.

Sixth Annual Report of the State Commissioner in Lunacy:
1879. JOHN ORDRENAUX, M. D., LL. D.

Dr. Ordronaux, the Commissioner, presents an interesting report to the Legislature. In treating of the medical aspects of insanity, he says that it is only by considering insanity a bodily disease, that the State can take legal cognizance of it. "The State can only deal with human bodies wherever it applies physical restrictions upon liberty, or afflictive personal penalties. It can not punish or restrain the mind, except in connection with the body." As regards the efficiency of State provision for the insane, no better commentary can be made, it is claimed, than the fact that though the statistics show an increase during the year of over *nineteen* per cent, the mortality fell to less than *eight* per cent. This also demonstrates that there will be such an increase in the total number of the insane, the ratio of increase to mortality remaining the same, that within the next five years all the completed asylums and those in process of erection will be filled to overflowing, and additional means of care must be provided, either by building a new series of asylums, or by enlarging those already in operation. Under the head of "Political Economy of Insanity," the Commissioner shows the impracticability of fixing upon any unvarying scale of per capita cost in the institutions of the State. This arises from the different circumstances of location, character of care demanded by different classes of the insane, the varying stages of completion of institutions, the numbers of the insane to be cared for, &c. "The prime factor in the problem which consists of the number of the insane and the character of their wants, can never be ascertained in advance." "There are no means by which uniformity in expenditure can be absolutely maintained." As showing the working

of the present lunacy law, the statement is made that at least 2,000 lunatics have been committed under its provisions to our various asylums, and no official complaint of the insufficiency in any respect has yet been made."

The Commissioner, after stating the delays which may be interposed to prevent summary action on his part to redress wrongs in case of the insane, asks for such amendments as will enable him to exercise his official powers without delay, and according to the emergency which may arise. He also recommends the appointment by the Supreme Court, of one or more Masters in Lunacy, in each judicial district. These should be counsellors at law, of at least two years' standing, and it should be the duty of the court to appoint some one of them on each and every commission or traverse in lunacy, as the chief commissioner or referee, before whom such issue must be tried. "By such means, we shall be educating a body of lawyers for trying these most difficult questions in every county in the State, and thus preparing the way for a cheaper determination of questions of lunacy than can now be obtained." The disposition of counties to care for their own insane, owing largely to the repletion of the State asylums is noted. The entire separation of the insane from the poor department of the county, is strongly urged.

The present provisions of the law, granting the State Board of Charities power to exempt from the operation of the Willard Asylum law, is sometimes rendered nugatory by the action of the counties in gaining from the Legislature, authority to care for their own insane. This has been done in some cases when the privilege has been denied by the State Board, where the means provided has not been deemed adequate for the care of

the chronic class. The case of Clinton county is cited as in point. The need of a hospital for epileptics is again urged upon the attention of the Legislature.

The question of the employment of the insane was investigated, and returns made from the State asylums and from some of the city institutions furnish the statistics of labor presented. In several instances, a money valuation is attached, but there would seem to be no uniform principle of estimating the pecuniary profit derived. The Commissioner presents a report of his action which was invoked in the case of the Kings County Lunatic Asylum. This is followed by a report to the Legislature, on the relations to the State, to the Society of the New York Hospital. The recapitulation of the statistics shows that there are 8,112 insane, 813 idiots, 576 epileptics; a total of 9,501 patients in the various institutions of the State.

Third Report of the Board of Health to the Honorable City Council of the City of Nashville, for the two years ending December 31, 1878. Nashville, Tenn.: 1879.

This report consists of twelve interesting and valuable documents, some of which deserve more extended reading than the limited circulation of the Health Board Report will give them. The Health Officer, Dr. J. Berrien Lindsley, opens the volume by a "Report on Sanitary Progress in Nashville, with Mortuary Statistics for 1877 and 1878." This report shows a gratifying progress in the sanitary condition of the city, and claims a reduction of the death rate from thirty-four per thousand per annum to seventeen per thousand, which is truly an end worth striving for.

Following this report is a paper by Dr. Thomas L. Maddin, entitled a "Plea for Sanitary Reform," having special reference to pure air and water. Articles three,

four and five are reports from various persons and committees upon the water works of Nashville, and are principally of local interest. These are followed by well arranged statistical tables, embracing information upon the various topics treated in the report. The Board of Health evidently consider it part of their duty to educate the people of Nashville upon all topics bearing upon sanitary science, for in this report they have presented papers upon the "Sanitary Geology of Nashville," by Prof. Alexander Winchell; upon "Trees and Shrubbery," by Dr. August Gattinger; on "Mental and Physical Hygiene of Public Schools," by Dr. J. Berrien Lindsley; on "Heating and Ventilation of Public Schools," by N. T. Lupton; and a "Report on the Prevention of Yellow Fever in Nashville in 1878," by the Health Officer, Dr. Lindsley.

We have contented ourselves with a running list of the contents of this report, and have not endeavored to comment upon any of the papers, although some of them are of considerable interest.

Neurotomy of the Superior Maxillary Branch of the Trigemini, for the Relief of Tic Douloureux. FREDERIC S. DENNIS, M. D., Demonstrator of Anatomy, Bellevue Hospital Medical College. [Reprinted from the *New York Medical Journal*, June, 1879.]

This is an exhaustive monograph upon the subject. It gives the history of the operation, and of the experiments which led to its adoption. Twenty-one cases are reported, more than half of them by American surgeons. The results show that no case of death occurred, and that temporary relief was obtained in all the cases collected, and permanent relief in sixteen. This establishes the propriety of the operation, and shows, in cases where the diagnosis is correctly made, a gratifying success, which may well lead to its general employment for the relief of this painful affection.

SUMMARY.

—Dr. William Hailes resigned the position of Third Assistant Physician in this Institution at the close of the year, and has resumed the practice of his profession in Albany.

—Dr. William W. Strew has resigned the Superintendency of the New York City Asylum, (Blackwell's Island). Dr. A. E. Macdonald, the Superintendent of the City Asylum, (Ward's Island), has been appointed to fill the vacancy thus created. He retains his former position, and is now the Superintendent of both city asylums.

—The Commissioners of Charities and Corrections of New York have appointed the following physicians as a consulting board to the city asylums under their care: Drs. James R. Wood, Austin Flint, Jr., E. G. Janeway, M. A. Pallen, A. McL. Hamilton, C. I. Pardee, J. P. P. White, A. L. Loomis, Whitman V. White.

—Dr. A. M. Fauntleroy has been appointed Superintendent to the Western Lunatic Asylum, of Virginia, at Staunton, in place of Dr. R. F. Baldwin, deceased.

—Dr. A. T. Livingston, formerly of the staff of this Asylum, is prepared to receive a few special cases of insanity or nervous disease, at his residence, No. 260 South Sixteenth Street, Philadelphia, Pa.

—Dr. Lauder Lindsay has resigned the Superintendency of Murray Royal Asylum, at Perth, Scotland, and has located at No. 9 Merchiston Ave., Edinburgh. He

was compelled to make this change from ill health, the result of a quarter of a century's continuous service.

—Prof. Charcot and Dr. M. G. Echeverria, of Paris, were elected honorary members of the British Medico-Psychological Association at the last annual meeting. Dr. Echeverria has also had the same honor conferred by the Société Medico-Psychologique, of France. He was one of the Vice Presidents of the last International Congress de Médecine Mentale, at Amsterdam. His residence is 17 Rue Boissy, des Anglais, Paris, France. During a hurried business trip to this country recently, we had the pleasure of a call from him.

—In our review of the fourth edition of Bucknill & Tuke's Psychological Medicine, in October last, we omitted to mention that Lindsay & Blakiston, of Philadelphia, were the publishers in this country. We take pleasure in making the correction, and acknowledging the receipt of a copy of the work from them.

—Dr. A. H. Knapp has resumed the Superintendency of the Lunatic Asylum, at Ossawatimie, Kansas, a position formerly held by him.

Credibility of the Testimony of those who have Recovered from Insanity, to Occurrences which took place during its Existence.

In the decision of Judge Shipman, overruling the motion for a new trial in the case of Nancy J. Newcomer vs. Dr. Edward H. Van Deusen, reported in this number of the JOURNAL, the subject of the competency of the testimony of recovered patients regarding occurrences which took place during their attacks of insanity, is passed in review, and the legal principles involved are so clearly stated that we do not hesitate to reproduce the remarks of the judge in this place.

But the force of all testimony depends as much upon the ability of the witness to observe the facts correctly, as upon his disposition to describe them honestly. Generally, a period of insanity has always been considered at law, as one of civil death, from which no *prima facie* testimony could be elicited, and certainly in every case great doubt must necessarily attach itself to the evidence of a person who, having recovered from a state of insanity, seeks to testify to facts occurring during its existence, and if it appears that the mind of a witness was in such a condition that it could not correctly observe or retain passing events, or in other words, at the time the events occurred, the witness had no mind to understand, or memory to store up and retain them, he can not be called a competent witness. Each case must depend upon its own circumstances, however, for a large proportion of people recovering from insanity, can recollect what occurred when insane, and correctly separate the truth from the delusion. Nevertheless, the law seems to be settled, that persons of "non-sane memory," or who have not such an understanding as enables them to retain in memory, the events of which they have been witnesses, are excluded from giving evidence in courts. Wharton states the rule thus: "If the witness appears on examination by the judge, or by evidence *aliunde* to have been incapable *at the time of the occurrence which he is called to relate, of perceiving*, or to be incapable at the time of the trial of relating, then he is to be ruled out." (1 Wharton's Ev., § 403, § 402, § 404, and cases cited in notes; 1 Best's Ev., § 147, § 150 and notes.) It may, at times, be difficult with certainty to find and fix the varying frontier which separates sanity from insanity in the case of witnesses afflicted with delusions; for a man may have many delusions, and yet be capable of narrating facts truly, and in all such cases, the delusion is allowed to extend only to his credibility, and not to his competency. But when a witness could not have known what happened, it is obvious he is not competent to testify to events taking place in his presence. A blind man may testify to what he heard, but not to matters only perceptible to those having sight, and a deaf man to what he has seen, but not to sounds. A witness can not testify to what occurred while he was asleep. An idiot is not a competent witness, where the incapacity of perception is total. No matter from what cause, if a person be incapable of understanding or recollecting occurrences which he is asked about, he is not a competent witness upon those subjects. Competency is exclusively a question for the court. It must be determined by the trial judge, from his own

observations of the witness during the trial, and the testimony of the other witnesses in the case. (1 Wharton's Ev., § 391 et seq.) Commencing several months previous to the time Mrs. Newcomer went to the Asylum, in October, 1874, a number of witnesses testified that in their opinion, she was then sane. These lessened in numbers and force, however, as the month of October was approached. On the other hand, many witnesses produced by the defense, testified in their opinion she was insane during the same period, extending down to the time she went to the Asylum. But during the time she was actually in the Asylum, the evidence practically is all one way. All trained and skilled observers who saw and examined her during the time she was there, testify in the most positive manner to her insanity, and their ability and integrity has not been assailed. There is no room for a possible doubt that the Superintendent, Assistant Superintendent and all the Assistant Physicians so regarded her, and that they had good reason to do so. A large number of witnesses without, and many within the Asylum also testified to specific acts which they saw Mrs. Newcomer do, and which were never done by a sane person. There is no reason to question the veracity of these witnesses, or to doubt their version of what occurred. In short, if any reliance whatever is to be placed upon human testimony, during nearly if not all the time she was there, Mrs. Newcomer was unconscious of what was going on around her, and of her own condition, although evidences of more active intellection existed during the latter part of her stay. But no part of the time was she capable, mentally, of making a contract or of transacting any kind of business, nor could she have committed a crime. It is also perfectly apparent that she could not be convicted of perjury, for any untrue statement made by her as a witness in this cause, in relation to matters occurring during the time she was in the Institution. Her mental condition was such as to entirely exculpate her.

ERRATA.

Page 296, line 11 from bottom, read "*as a matter.*"

Page 301, line 7 from bottom, read "*result*" after "*inevitable.*"

Page 302, line 2 from bottom, omit "*that.*"

Page 305, line 4 from bottom, read "*improper conditions.*"

Page 311, at top, put "*II*" for "*I.*"

Page 325, first line, read "*where*" for "*when.*"

AMERICAN JOURNAL OF INSANITY, FOR APRIL, 1880.

MEDICAL JURISPRUDENCE.

BY ISAAC EDWARDS, LL. D.,

Late Professor of Personal Property, Contracts and Commercial Law; Law Department, Union University, Albany, N. Y.

A physician writing upon this theme, gives us a medical treatise on those forms of disease, injury and death which are most frequently the subject of judicial investigation; and a lawyer, on the other hand, gives us the rules of investigation, and the legal consequences springing out of these injuries and diseases. The one naturally deals with the science of medicine, and the other with the science of law; both modes of investigation, prosecuted with skill, give us the modern science of medical jurisprudence.

We take many things besides property and social advantages by inheritance. First of all we derive our physical nature from our ancestors, the size and strength of the body, our features and complexion, the color of the eye and the hair. We call the flax-haired Englishman of to-day an Anglo Saxon; and by that name we suggest the multitude of influences working through twice ten centuries to form the character. As a habit of thought, we tacitly recognize the hereditary type of the physical man. Our minds run back on the line of his descent, through the rugged English

history, for the trials and struggles and activities which have produced this bone and muscle. We consider the country and climate, and the manner of life which have united through so many generations to give us precisely this physical basis of life. We do not ignore, we go behind the moral forces bearing on his physical development, in quest of those material forces which have created this robust and hardy frame.

We are not here suggesting a theory, we are simply stating a well verified fact. The last word of ethnological science asserts, with a fearless appeal to history, that the populations of Europe, Asia and Africa were twenty centuries ago just what they are now, in their broad features and general distribution. So tenacious of structure, color, form and feature, are the different stocks or races of men. Descending to a more special view of the same truth, we have it on good authority that eighteen hundred years ago, the population of Britain comprised people of two types of complexion—the one fair and the other dark—one people red or fair-haired and large-limbed like the Germans, and the other of dark hair and dark complexion, and closely resembling the Gauls, the nearest people on the south; that these two people did not differ from each other in any important physical character; that in none of the invasions of Britain which have taken place since the Roman dominion, has any other type of man been introduced; that the Saxon invasion did not bring in a new type of people; that the Danes and the Norsemen who followed them only came to a kindred race; and that the conquest of William did not materially alter the relative strength of the dark and light complexioned races of Britain. This statement grows upon us greatly as we read, in a late critique of Mr. Huxley, that now, as in the age of Cæsar, the dark-complex-

ioned English people predominate in the western parts of England, while now, as then, the light or fair men predominate in the north and east sections of Britain, in spite of the admixture created by the marvelous movements and activity of modern times. Who can dwell upon these facts without perceiving the vigor of the latent force or law, in virtue of which the apparently superficial characteristics of race are transmitted through so many centuries. The persistency with which the race of Israel maintains itself, even to its physical peculiarities, through the ages, through the rise and fall of empires, under every sky, against all manner of persecutions and hardships, is thought to be one of the standing marvels of history. And it is certainly true that no race gives us a record of such enduring and conservative power; such capacity to withstand the modifications of time, circumstances and climate. But who can say that the race of Ishmael, the Bedouin Arabs, traveling over the deserts and dwelling in its fertile valleys and along the shores of "Arabia the blest," or the fair-haired German race in its emigrations and permanent seats, has not vindicated itself by an equal vigor, by an equal conservatism of the peculiarities of the race. We are not surprised that a high authority lays it down as a general law that the physiological character of a nation lasts longer than its language.

With all this uniformity we have, on the other hand, endless variety; to some extent one race blending with another, the dark complexioned with the light in the same family, infinite diversity in the same people. It is like what we see in the vegetable world, in trees, for example; the olive, the oak, the walnut, the beech, the maple; each keeps its organism and fiber with the tenacity of a living creature; each produces its like, its

seed is in itself; there is no change from one species into another within the range of history; the grain of the wood is the same, and the outer covering, age after age; and yet we find no two trees precisely alike in all the mighty forest.

We have, then, two great laws; a law of descent, working uniformity, and a law of development, working diversity or that individuality which is found in every form of life. By the first, the law of uniformity, the child inherits the form, structure and physical attributes of his ancestry; his bone and muscle and vital organs; the length and size of the body; the narrow or broad chest; and the relative size and strength of the internal organs, such as the lungs and heart, liver, &c.; the brain and nerves and temperament of the body. By common consent these physical organs are transmitted and modified by descent. We have families, and even large districts of country, remarkable for their tall and strong men; long-lived families, among whom length of days and temperate living is the rule; families among whom diseases of the lungs prevail; left-handed families; scrofulous families, and families afflicted with the gout or with rheumatism or with cerebral diseases. How long is this catalogue of evil heritages? Apply for an insurance on your life, and note well the questions you will be called upon to answer. Before you are half through the list you will find how many of your chances for an average life depend upon the bodily or physical conditions with which you were born. Apparently the questions are not framed on any scientific theory; but they are very searching, just the kind of questions the shrewdest man will ask, who is about to risk his money on your chance of life. He assumes that there are hereditary diseases; he examines you with just the same care as if your chance for a long

life depended solely upon your present condition and habits. He takes a description of your person as minutely as if he were going to advertise you as a run-away criminal. He inquires into your antecedents at a time when you had only a bare possibility of interest in this life. He measures you as if he were going to make you a suit of clothes or a coffin. He takes your weight, 175 pounds; your height, 5 feet 10 inches, the measure of your chest in its ordinary state, and when you breathe deeply—38 and 40 inches—the measure of your abdomen, your figure and gait or step, the relative size of your bones, your temperament, the color of your eyes and hair, your clear skin and firm muscle. Nothing escapes him; his inquisition is as keen as that of a lover, or that of Henry the Eighth when he inquired of his minister, Cromwell, so narrowly into the form and person of Anne of Cleaves.

We gain our true knowledge of physiology from our physicians; from those who make the study of the organs and functions of the animal economy a life work. From them we learn that the form and vigor of the organs and parts of the body are often transmitted, like property, by descent; that the form of the eye, and consequently the power of vision, is thus transmitted; that the size and strength of the lungs, and hence their capacity to resist disease, are very generally transmitted; that the heart, liver, kidneys and spleen are subject to the same law of inheritance; that the brain, with its wonderful mechanism and special aptitudes, including a liability to derangement, often goes down from father to son; that every formation of body, internal or external, and every modification of the senses—blindness, long or short sight, quick or slow hearing, absence or acuteness of smell—may be transmitted as family heritages. They go further than this; some of

them tell us that the vicious tendencies and habits of the parents, their indulgences and excesses go down upon the children with the power of an irresistible impulse; that the child is made a drunkard by the liquor which his father drank before he was born. They appall us, as they coolly pile fact on fact in demonstration of the fearful truth; more terrible than the doctrine of inherited sin; because wrought into the very texture of the body, into the marrow of our bones. They even tell us, some of them, that malformations may be transmitted; like a hunchback, or strabismus, the squint eye; or, in horses, ring-bones and spavins. We are somewhat relieved on this point when a learned writer, Dr. Elam, tells us these aberrations from the normal type are not common, since docked horses and cropped dogs bring forth young with entire ears and tails.

What do our physicians mean when they tell us that certain diseases are hereditary? As a general fact, they do not mean that they are literally transmitted by inheritance. Apoplexy, calculi and gravel in the bladder, and gout are called hereditary diseases; and they are so in about the same sense as morals and manners are hereditary. The same habits of life produce the same results. Rich food, stimulating drinks, and a luxurious and sedentary life create an unnatural habit of body; they bring upon the offender the disease which results naturally and directly from his manner of life. A full plethoric habit is said to indicate a tendency to apoplexy, and yet it is well known that this form of disease often seizes men of a lean and spare habit. Stone and gravel and gout, arising from different causes, are said to be hereditary; and they are frequently found, generation after generation, in the same family. The same is true of intemperance; the

habit of indulging in spirituous liquors is transmitted, and with it an impaired or weakened constitution. How far this weakness extends to the special organs of the body, such as the lungs, the heart, the liver or kidneys, can not be definitely ascertained; but it is certain, it is verified by universal observation, that health and vigor may be inherited, and that physical infirmities are transmitted from father to son, from mother to child.

The law assumes that insanity is an hereditary disease. Our rules of evidence proceed upon this theory. A man, indicted for a crime, interposes for his defense the plea of mental derangement at the time of the fact charged; and under this form of defense he is permitted to prove that this disease prevails in his family—that his great-grandfather was so afflicted. Three generations, a pretty good leap this, in time and in departure from the original blood. Let us reverse Franklin's table, in ridicule of the celebrated Society of the Cincinnati, and we shall find, assuming this law of inheritance to be strictly accurate and uniform, that a man stands just one chance in eight to inherit the disease of his great-grandfather; and if we carry back the calculation seven steps farther, making ten in all, he does not stand one chance in a thousand of inheriting the disease of his ancestor, ten degrees back in lineal ascent.

Now we are assured that in France and in England about one person in every 400, Scotland about one in every 450, and in this country about one in 500 is deranged. It is easy, therefore, to see that this theory of inheritance must not be pushed back too far, or else we shall communicate this assumed taint of the blood to the whole body of our people.

What is insanity? The physicians do not agree with our courts upon this point. The law holds a man

responsible for his acts so long as he has the capacity to distinguish between right and wrong. On the other hand, medical writers very generally maintain that insanity may exist where a man has the capacity to discern, but lacks the power of choosing between right and wrong. They distinguish between the intellectual perception of what is right, and the moral power of choosing it. They assume that a man's faculties may be so deranged that, though he perceives the moral quality of his acts, he is unable to control them, and may be urged forward by some mysterious pressure to the commission of acts, the consequences of which he anticipates, but can not avoid.

The criminal law rejects this theory. It refuses to admit the existence of what is called impulsive insanity.* It affirms and enforces the restraining power of the will and conscience; and whatever may be said in criticism of its severity in rare and unusual cases, every one must see how impossible it is to frame a law to excuse deeds of violence and blood, because committed under some blind and irresistible impulse. The debatable land between mad passions and blind impulses unto crime, and the deeds of iniquity that spring from them, is confessedly very narrow.

Between the acting of a dreadful thing
And the first motion, all the interim is
Like a phantasma, or a hideous dream :

It is not the object of the law to palliate and excuse, but to repress the passions.

What is insanity, this unsoundness of mind? It is a sickness, a disease. Here the law agrees with the physicians. It is a disorder, a derangement of the mind. Excluding cases of dementia, or loss of mind and intellect, the true test of insanity is delusion.

* 52 N. Y., 467, *People v. Flanagan*, killing his wife.

[*Austin v. Graham*, 29 Eng. Law and Eq., 38.]

An Englishman, living long in India, became familiar with Eastern habits and superstitions, avowed himself a Mohammedan, and after his return to England was known among his friends as Hindoo Graham. On his death he left a will, giving several legacies, and the residue of his property to the poor of Constantinople, and towards erecting a cenotaph in that city, inscribed with his name, and having a light perpetually burning in it. The Prerogative Court, on these facts, held the will invalid. On a review in the Privy Council it was held that the facts were consistent with sanity of mind, there being no delusion or other proof of mental disorder. He labored under a delusion, according to the faith of the Christian world; but not that kind of delusion which the law regards as the test of insanity.

In a late case, which arose in the City of New York, the testator labored and made his will under the belief that his wife was conspiring with his relatives to break up his family, and kill him in some secret way; and Chief Justice Denio laid down this as the rule of law: "Where a person persistently believes supposed facts, which have no real existence, except in his perverted imagination, and against all evidence and probability, and conducts himself, however, logically upon the assumption of their existence, he is, so far as they are concerned, under a morbid delusion, and delusion in that sense is insanity." The testator had disinherited his family in favor of some charitable institutions.—33 N. Y., 619, 624.

In border cases it is difficult to say what is sanity, and what is insanity. "No one can say where twilight begins or ends, but there is ample distinction between day and night." Beyond a question there are cases where reason, the light of the mind, is lost as imperceptibly as the day declines into the night; cases where the moral vigor of the mind is diminished so slowly that it is almost impossible to tell when it passes the line of responsible action; cases of insanity which are not marked by any well defined delusion.*

An uncontrollable frenzy, arising from drunkenness, is not regarded as a disease. The law can not con-

* *Haviland v. Hayes*, 37 N. Y., 25; 15 Wal., 580.

sider it as the least excuse for crime, because it is voluntary and because every one owes it as a sacred duty to himself and to society to preserve his capacity for sane and rational action. And yet this rule, founded upon motives of public policy, is not enforced against a man who is afflicted with the *delirium tremens**—a disease brought upon him directly by his intemperance, and by the law treated as a confirmed malady, with the forbearance due to the infirmities of men.

In its origin, what is insanity? Is there such a thing as mental derangement, not connected with some physical disease? We come here upon a question of profound interest. The mind is united with the body; how united no science is able to explain. The mind acts upon the body, and the body upon the mind. Can the reason be overthrown, or can the mind be deranged otherwise than through some disease of the body or brain? Our traditions are full of superstitions. It is true the word *lunacy* has been emptied of its original sense; but it is not true that we have thrown off all the superstitions that cluster about the subject.

In the melancholy and humorous Burton, we have among the Causes of Melancholy, a subsection entitled, *Parents a Cause of Propagation*:

“That other inward inbred causes of Melancholy is our temperature, in whole or part, which we receive from our parents. * * * Such as the temperature of the father is, such is the son’s; and look what disease the father had when he begot him, his son will have after him; and is as well inheritor of his infirmities, as of his lands. And where the complexion and constitution of the father is corrupt, these, saith Roger Bacon, the complexion and constitution of the son

* 18 N. Y., 9, 14, People v. Rogers.

must needs be corrupt, and so the corruption is derived from the father to the son. * * * Selencus had an anchor on his thigh, so had his posterity. Lepidus in Pliny was pur-blind, so was his son. That famous family of *Ænobarbi* was known of old, and so surnamed from their red beards." He then goes on to speak of the Austrian lip and the Bavarian chin as a species of heir-loom, always descending in the family.

We are not, fortunately, bound to regard this quaint old writer as an authority in science, because it would certainly embarrass us to digest those separate subsections wherein he shows how bad angels and witches and magicians, and the stars in their courses, become fruitful sources of melancholy; sources which have very much faded out of our modern scheme of things.

In 1843, thirty years ago, 276 persons were received into the Asylum at Utica; and in the analysis of the causes of derangement given by the Institution, we have this relative statement: moral causes, 128; physical causes, 93; unascertained causes, 55. From that time down to the year 1866, the number of cases classified as resulting from moral causes, steadily diminished. In that year, out of 388 cases, there were only twelve mentioned in which the mental derangement was attributed to moral causes. From the year 1866, the Institution has ceased to attribute the disease to moral causes. In other words, it no longer credits the notion that the mind can be thrown into derangement, except through some physical disease.

In his address before the State Medical Society, in February, 1871, Dr. Gray uses these words: "We say that insanity is a bodily disorder; that it is a disease of the brain. This does not imply that there is something to be thrown off, in the character of some morbid entity. It simply means that certain changes have

taken place in the brain, or in its investing membranes, which imply a departure from healthy physiological action, and that in consequence of these changes, there is more or less prolonged disturbance of the mind." He does not deny that moral causes may operate secondarily through the emotions, to produce the physical disease. For in another place he says: "In insanity we have the dominating organ always deranged in function, if not further. Whatever the cause may be, physical or mental, or whether the brain is primarily or secondarily affected, the condition in insanity is cerebral disease. Disease is what we have to deal with; not disease of mind, for the mind, the spiritual principle, the immortal being can not be the subject of disease. The manifestations of the mind are disturbed when the brain, which is its organ, suffers." Disease of mind is thus relegated into the field of superstition.

As a lawyer, I do not assume the burden of original investigation into the causes of insanity. The subject belongs to our physicians, because it involves an inquiry into the abstruse operations of diseased organs upon the mind. A subject of great and vital interest, because it relates to a disorder which is increasing under the rush and pressure of our modern life.

The form in which Dr. Gray states the results of close observation, is very interesting. He gives us these propositions:

1st. Disease of any part of the organism, may be the pathologic cause of insanity.

2d. In such cases, insanity is not manifested until the brain is actually involved.

3d. Disease of the brain or its membranes may be the primary, exciting cause of insanity, and other parts of the organism subsequently become affected.

4th. Insanity more frequently has its primary origin in pathologic states outside the brain, than in primary diseases of the brain.

These causes outside of the brain are of deep interest; they affect the general health, they touch the vital processes of nutrition, the marvelous scheme by which the tissues of the body are constantly removed and renewed, the process of digestion by which food is converted into healthy blood, the circulation by which the blood is purified in its passages through the lungs and excretive organs, and above all, the vital action by which each organ and artery and muscle and nerve is reinforced with new vigor. What is this but a continual act of creation—the inscrutable chemistry of life? Conceding the prevalence of these causes outside of the brain, and it follows that a tendency to mental derangement is not generally transmitted, except in the form of increased liability to some physical disease, or some derangement of the vital processes. It follows that the mind depends for its natural action much upon the health of the entire body; that the brain being the organ through which it acts, its action becomes unnatural when the brain itself is diseased or left without due nourishment; that it fails to be duly nourished when the vital processes are so far disordered that they cease to create healthy blood with which to nourish the brain: that insanity is no more hereditary than a disease of the liver; that if it be hereditary in any sense, it is so only so far as the vital organs are transmitted with their special aptitudes and liabilities. The ancient thought is still the best expression of true science—the thought which connects by a natural law *a sound mind with a sound body*.

HYOSCYAMIA IN INSANITY.*

BY JOHN P. GRAY, M. D., LL. D.,
Superintendent New York State Lunatic Asylum.

For a number of years we have, from time to time, as the opportunities in this Asylum presented, made special study of certain remedies, to determine, as far as possible, their therapeutic value and their application to the conditions of the insane in the various forms and stages of the disease. Thus we have made careful study of conium and its preparations, of ergot, of phosphorus and phosphoric acid, and of chloral.

Hyoscyamus has long been recognized as one of the most valuable remedies in certain states of cerebral irritability and consequent mental excitement. We have used for many years the tincture of the leaves and seed, and the fluid and solid extracts, with great benefit. When hyoscyamia was announced, we at once procured it, and have since used it largely, internally and by hypodermic injection. It is safe, reliable and effective in small doses—the sixth of a grain of the dark preparation of Merck, (sometimes called hyoscyamin,) or the one-twelfth of a grain of the white crystal, acting much quicker and with more certainty than the maximum dose of the tincture or extracts. In acute mania, and melancholia with frenzy, no remedy we have used has more efficiently and readily calmed the high nervous and muscular excitement, and brought a degree of mental tranquillity essential to securing nourishment and rest, as means of restoration. In certain cases of mania

* Read before the Medical Society of the State of New York, at its last annual meeting, February 5, 1880.

and melancholia, where the delusions have been of such a character as to influence the patient determinately to resist food, while at the same time the frenzy and excitement have been intense, its administration has almost invariably controlled the patient. While under its influence, such patients will take food more readily, and, if necessary to resort to the œsophageal tube, it will be easier and entirely safe to introduce the tube and administer the necessary food. In these cases, the remedy has tended to quiet the stomach and to give toleration of food. In some cases of persistent refusal of food, even for months, and determined efforts at ejection after administration, this influence has been very conspicuous, as in the following case:

Man, aged 28; single; merchant; entered the Asylum with a history of ill-health dating back some three years. He was emaciated and anæmic; circulation feeble; muscles soft and flabby; skin dry and harsh; bowels constipated; breath offensive. He was gloomy, reticent, and at home seclusive. He asserted that a conspiracy had been formed to wrest from him the title to certain property; that his friends and relatives had entered into this conspiracy; and he gave an incoherent statement of facts which led him to this conclusion. He denied his insanity, but said he was very forgetful, and that small things worried him. Prior to admission, he had made suicidal threats.

Measures were taken, both by diet and medication, to correct the disturbance of digestion and improve his general condition. He resisted, to a certain extent, all remedies, and after some three weeks he refused to take any food, and the use of the tube was required. At this time he denied his own identity; said he would jeopardize his property and life by eating. For six months both food and medicine were daily administered

by a stomach tube. At the end of this period he commenced to eat voluntarily, and continued to do so for two weeks, when he suddenly refused to eat any more, repeating the same reasons above given, and for five weeks the tube was again resorted to. During this time he made repeated efforts to commit suicide by self-strangulation. At the expiration of this period he began to talk quite freely of his condition, and referred to his former feelings, and took food voluntarily for some seven weeks, when he again, more strenuously than ever, refused to eat. He then resisted all care, and persistently attempted to take off and destroy clothing, and was strongly suicidal. He acquired such control over his stomach, that he could at will eject its contents after being fed. For a month every effort was made to prevent this, but with indifferent success, until the hypodermic use of one-sixth grain of hyoscyamia, immediately before feeding, was resorted to. This not only prevented his voluntary emesis, but also largely the resistance to care he had previously manifested. As soon as its use was discontinued, even for a day, the vomiting, disrobing and general resistance would recommence. It was not necessary to give more than one injection daily.

The following case is illustrative of its value in acute mania: Man, aged 21; single; of good habits; quiet and industrious. Admitted in an acutely maniacal condition, of a week's duration. Was brought in handcuffs, noisy, incoherent, violent, and threatening in speech. After a residence of less than two weeks in the Asylum the patient became quiet and orderly, was at work on the farm, and continued this for a week, when he again became disturbed, was very maniacal and destructive. This condition continued for nearly a month, and was wholly uncontrolled by medication,

until hyoscyamia—one-fourth grain—was administered once daily, all other remedies being discontinued. Under this treatment he became quiet and orderly, steadily improved, and after seven months was discharged recovered. Aside from general tonics no other treatment was subsequently employed in this case.

The two following cases of female patients are further illustrative of its action and influence: The first was a well-marked case of chronic mania, in a woman 36 years of age, with the following history on admission to the Asylum: In December, 1877, she showed the first evidences of insanity, in depression and fear; asserted she was to be burned up, and to escape, jumped from a window of her room. Under medical treatment she improved, and for a time was more cheerful, but subsequently the delusive ideas became as prominent as before, and she soon became maniacal. She then received a blow on the head, followed by severe headaches, during which she was subject to furious paroxysms of raving. When admitted to the Asylum she was thin in flesh, appetite poor, tongue furred, and secretions offensive. Within a few days she had an attack of maniacal frenzy, in which she was first restless, then noisy, screaming, and hallooing, denuding her person, and opposing all necessary care. From this time these attacks were of daily occurrence; she became sleepless, and refused all nourishment, which was administered for weeks together by the stomach tube. In her more quiet condition she said she refused food from fear of poison, and that she saw dogs after her, and bugs coming out of her nose. She also had hallucinations of hearing, and held conversations with imaginary people, in which she was very profane and obscene in speech. Two months after admission she took food voluntarily, but was not essentially changed

in other regards. She became dangerous to those around her, from the suddenness and violence of her maniacal attacks, which continued unabated. Hypnotics were administered, but without any marked results. She ate sparingly and slept poorly, and after a residence in the Institution of nearly a year, in this condition, hyoscyamia was given up to doses of one-half grain in the morning. Under the use of this she became quiet for some hours of the day, was dressed and fed with little difficulty, and able to be on the ward with other patients. After a few weeks the dose was changed to one-fourth grain doses in the morning and at bed-time. This secured quiet through the day, and rest at night; her appetite improved, and she gained in general health. When discontinued, at intervals, she became maniacal, and also lost appetite and flesh. The change for the worse without the medicine, and her improved condition under its use, led to its being continued. She has taken it since with brief intervals of omission, and without any increase in the size of the dose. She is now quiet, keeps her clothing on, and is about the ward. In this case the benefit has been marked in making the patient more comfortable, and rendering better care possible, without danger to those about her.

The second case was that of a woman; aged 37; married; three children. She had been a prudent housekeeper and was happily married, devoted to her husband and children. For a year and a half before admission she had been running down in health, and inclined to worry about financial matters. This was increased by ill success of her husband in business, until patient became sleepless and restless and much depressed in spirit; asserted that the family was coming to want, that their expenses must be cut down,

and demanded from her husband an account of all expenditures. She then became jealous of him; accused him of keeping another woman; was excited and angry if he talked to another woman in her presence, and, if she saw him talking with a man, demanded to know what woman they were talking about. She gradually grew more disturbed, attempted suicide, and a short time before coming to the Asylum, drove away with a horse and buggy in which her husband had left her for a moment, with such speed that she was with difficulty overtaken after a chase of some miles. When received into the asylum she was thin, sleepless, restless, moaning and groaning, and soon passed into a condition of violent frenzy. She asserted she was to be murdered; was very noisy, at times shouting murder and fire; ate and slept poorly. Extra diet and hypnotics were administered. This maniacal condition gradually increased, and she became destructive of clothing, pulled out her hair, was indifferent in habits and suicidal. She was then put on hyoscyamia, one-fourth grain morning and night, and under it became quiet, took food and slept well. In ten days it was discontinued on account of improvement, which has steadily progressed, and now, after being three months in the Asylum, she is quiet, ladylike, neat in person and dress, and convalescing favorably. The first improvement took place only after she was put on the use of the drug, and we believe that in this case, as well as in several others, the disease was shortened by the use of the remedy, and that in all of the cases in which it has been employed, the strength has been husbanded, and the patients have been in better condition to withstand the exhaustion of maniacal excitement, or the frenzy of melancholia. We might extend largely this list, for we have administered hyoscyamia in more than

a hundred cases of acute mania, chronic paroxysmal mania, melancholia and paresis, but it is unnecessary.

The cases of mania in which hyoscyamia was administered, may be divided into those who were maniacal, raving, noisy, incoherent, who opposed necessary care, and were destructive of clothing; second, such as had occasional periods of maniacal excitement; and third, such as were uneasy, talkative, restless and sleepless.

The cases of melancholia may be divided into three classes. Such as had periods of frenzy, sometimes endangering life; such as persistently and determinately resisted care and food under delusion, and such as would wear themselves out from restlessness and constant motion.

The case of paresis was one with maniacal attacks and resistance to care.

In connection with this point of resistance to taking food, in cases of excitement, ether or chloroform have been used, as well as hypodermic injections of morphia and warm baths; but these remedies, with the exception of the latter, are liable to disturb the stomach.

As a sleep-inducing remedy, hyoscyamia will often succeed in cases of furious insanity, where other remedies fail, and it has the advantage that it can be easily and safely administered hypodermically. In some cases of violent mania, where there is failure in cerebral energy, a combination of hyoscyamia and morphia is desirable. I have given, in cases of depression bordering on melancholia, and cases of high nervous excitement with muscular restlessness, the following:

℞ Ext. Nucis Vom.
 Morph. Bromid. āā grs. viii.
 Piperin grs. x.
 Hyoscyamia grs. iii.
Ft. Pil. 30.

Sig. one twice a day, and reduce to one at night.

I have seen very beneficial results in this class of cases from the twentieth to the fiftieth of a grain of hyoscyamia three times a day. The dose of the crystal varies from the fiftieth to the half of a grain, and as high as three-quarters has been given.

There are some who may take large doses without any apparent effect. It may be fairly stated, I think, that if, after the administration of a few doses, it does not produce a quieting and calming influence, it should be discontinued, and other remedies, such as chloral, morphia, conium, or the bromides substituted. No remedy is universally applicable nor universally beneficial. In high excitement, where there is considerable plethora, I have found it advantageous to give the bromides internally and the hyoscyamia hypodermically, and in others to alternate hyoscyamia with the bromides. These remedies together are especially useful in mania associated with epilepsy.

In paroxysms in chronic insanity, where persons are in a state of mental perturbation, and under the control of marked delusions, and inclined to take off or destroy their clothing, and keep up what might be called a constant "fussing and mussing," small doses of hyoscyamia internally or hypodermically are very useful. This condition occurs in cases of incomplete dementia as well as in chronic mania. The medicine seems to relieve the muscular and nervous restlessness, and to quiet the cerebral perturbation.

We had long been familiar with the value of the other preparations of hyoscyamus in these cases, but the alkaloid is so much more active, and so much quicker in action, and gives such immediate relief to the irritability of the brain, that its value is conspicuous. As a rule, in such cases, it is not necessary to continue the remedy for any length of time. Indeed, it is generally

quite sufficient to give it once or twice a day, or once a day and once at night for a few days—then intermit. One might say, to see a patient, before so disturbed, and so much more mild and comfortable while moderately under its influence, that it simply breaks up these habits of restlessness, tearing, etc. Perhaps this is sufficient explanation, but I am inclined to think it produces an effect upon the cerebral nerve tissue of a beneficent character, quieting the irritable and excited brain quite as markedly as preparations of opium, in their influence on nerve tissue, relieve pain. At all events, we have found it very useful as a medicine, and in no instance harmful. Discriminately used, it certainly aids in the comfort and restoration of the patient. To be able to give even reasonable brain quiet to conditions of frenzy, is quite as comforting and aidful as to relieve the restlessness of a fever patient by a bath, and saves from just so much useless wear and tear.

I have found it beneficial in hysteria, and also in chorea. I have not had the opportunity of personally observing its influence in delirium tremens.

We have not found it particularly valuable in chronic insanity, where very marked delusions are quietly held; that is, when the insanity is fixed and there is no raving or frenzy, and when, if there is resistance to food, care, &c., it is due to a quiet determination to carry out this purpose; cases, for instance, where the delusions of suspicion are fixed by a process of reasoning from false premises, and are not so directly the expression of cerebral excitation as in the beginning of the insanity. The cerebral condition—that is, the morbid state of the nerve tissue—may be quite different in the early and progressive stages of a case of insanity, and each stage may develop delusions, or the same delusions may continue throughout the disease. The medication, however,

may necessarily be different, for the medicine is for the relief of the physical state, and must be prescribed with this in view.

I present these remarks to the medical profession, not as a general paper on Hyoscyamia, but as the result of our observation thus far with this remedy.

THE PROTECTION BED AND ITS USES.

BY W. LAUDER LINDSAY, M. D., F. R. S. E.,
Physician to the Murray Royal Institution, Perth.

(A SUPPLEMENTARY PAPER.)

[From the *Edinburgh Medical Journal*, for January–March, 1880.]

Since the publication, in the number for February, 1878, by the *Edinburgh Medical Journal*, of a paper with the above title, information has reached me from various quarters, showing that the idea of some such bed has occurred to various physicians, in various forms, at various times, and in various countries, and that in some countries the use of some form of "Protection Bed"—for the insane at least—is not only extensive, but is increasing rapidly. These facts are, of course, but so many powerful arguments in its favor.

It appears to me desirable to adduce a few of the facts referred to, in order to the encouragement of the use of some such bed, especially in England, where, of all countries in the world, it seems most to be required—where fatal and other injuries from its *non-use* are of frequent occurrence.*

In the first place, then, the AMERICAN JOURNAL OF INSANITY did me the honor of reproducing the whole of the (February, 1878) article on the "Protection Bed," in its quarterly number for April, 1878, (p. 517). To the reprint was prefixed a short historical account of the use of such a bed in some form in different coun.

*I allude to such injuries as those that happened to the unfortunate Italian, Santa Nistri, at Hanwell, on 21st of October, 1869, and which were the subject of a leader, entitled "Death in a Lunatic Asylum," in the *Daily Telegraph*, of 30th of same month; or to those compiled from the Blue-Books of the English Lunacy Commissioners, and published under the title, "A Social Blot," in the *British Medical Journal*, vol. ii, for 1870, p. 441.

tries—an account of such general interest that I need offer no apology for here quoting it *ad longum*, (from p. 515).

“The crib-bed was devised in France by Dr. Aubanel,* of the Marseilles Lunatic Asylum, in 1845,† and described in the *Annales Médico-Psychologiques*, for November of that year. This bedstead was introduced into the Asylum at Utica by Dr. Brigham, in 1846, and was described as ‘made in the form of a *bunk*, with a convex lattice-work covering it, and fitting evenly to the margin. This is of such a height as to allow the patient sufficient freedom of motion; it is affixed by hinges to one side of the bedstead, like the cover of a trunk, and is fastened at night by two clasps on the opposite side.’‡

“Dr. William Wood, Medical Officer of Bethlem Hospital, England,§ describes a similar bed, which he calls the *enclosed bed*, of which he gives a drawing|| in *Winslow’s Journal of Psychological Medicine*, (vol. v, 1852.)

“The principle of this bedstead is that of a *crib* with a lid to it, the inside being padded, * * * the lid consisting of a network of webbing, without any woodwork projecting over the patient as

* Something of the same kind, *minus* the cover, is described by Dr. McIntosh, of Murthly, as having been in use in the celebrated Bicêtre, Paris, in 1861, (*Journal of Mental Science*, for April, 1862, in an article on “Asylums and the Insane in France and Belgium.”) Referring to a case of acute mania in a young man, he says: “His iron bed had sides about 18 inches in height, and softly padded; one of them folded down.”

† This can not, however, be the true origin of such a bed; for, in 1868, Dr. W. A. F. Browne, of Dumfries, whose erudition on medico-psychological subjects can not be doubted, informed me that what he himself had long used under the title of the “Conservative Bed,” was the bed formerly in use on the Continent, and figured on p. 250 of Guislain’s *Lettres Médicales sur l’Italie*, in 1840, deprived of its noxious parts and peculiarities.”

‡ For full account, see the AMERICAN JOURNAL OF INSANITY, for October, 1846.

§ Dr. Wood has long been physician to St. Luke’s, (Hospital for the Insane), London, and proprietor of the Priory, (Private Asylum), Roehampton, (near London).

| There would thus appear to be extant, in a published form, no less than three sets of drawings of some form of protection bed, viz.: those of (1) Dr. Guislain, 1840; (2) Dr. Wood, 1852; and (3) Dr. Lindsay, 1878. I have never, however, had any opportunity of seeing the drawings of Drs. Guislain and Wood, or their descriptions thereof.

he lies in bed, and being at a sufficient height from the top of the mattress to allow of free movement by turning from side to side, without touching the cross-webbing of the lid.

"In 1854 the *bunk*, or *Aubanel bed*, was abandoned at Utica, and one constructed modeled after the pattern described by Dr. Wood, with this modification, that the sides were made with rungs like an ordinary child's crib, instead of with boards, as the English bed. This bed, as now employed, is thus described in the Eighteenth Annual Report of the New York State Lunatic Asylum, (for 1861):*

"This bed is constructed like an ordinary child's *crib*, with the addition of a slatted cover. This arrangement does not interfere with the movements of the patient in rolling from one side of the bed to the other, or in moving the limbs in any way; it merely prevents the patient from sitting up in, or getting out of bed. As the sides and top are open, the air circulates as freely about (the body of) the patient as in an ordinary bed.'"+

One of the results of the republication of my (February, 1878) paper on the "Protection Bed," in the *AMERICAN JOURNAL OF INSANITY*, was, that it attracted the attention of Dr. Manning, who constitutes in himself a lunacy board for the important colony of New South Wales. At his instigation the government of that colony officially applied to me, in February, 1879, for a specimen of the protection beds actually used in the Murray Royal Institution, Perth, and the result was, that one was at once supplied for the purpose of transmission to Sydney, and of introduction into the public asylums of New South Wales.

* I find the same description also in the Twenty-First Annual Report, 1864, p. 27—a report that discusses fully the whole subject of *mechanical restraint* in the treatment of the insane, (pp. 25-28). Very much the same ground anent "restraint" is gone over in the Eighteenth Report, 1861, pp. 22-25.

† This is a simple statement of *fact* by the editors of the leading *AMERICAN JOURNAL OF INSANITY*. It may be contrasted with the *fanciful* description of a sensational American writer, quoted in the *Journal of Mental Science*, vol. xiv, 1869, p. 205, referring to the use of what would there appear to be called a "case bed," in the Texas State Lunatic Asylum.

Now, so far as I am aware, there is no *English* authority in lunacy who can compare with Dr. Manning in regard to the experience he has had of the management of the insane in all parts of the civilized world—experience gathered as Special Commissioner of the New South Wales Government, in 1867. Nor is there any English Government Blue Book that, in the fullness of its details concerning the organization of lunatic asylums, can approach Dr. Manning's "Report on Lunatic Asylums," presented to his Government, and printed in 1868. The fact, then, that the want of such a bed has been felt by him, and that he regards the special form of protection bed described in the *Edinburgh Medical Journal*, in February, 1878, as likely to meet this want, is *pro tanto* testimony in its favor.

But another of our Colonies has already done much more than New South Wales proposes to do in the use of the protection bed, seeing that Dr. Reid, the medical head of the Provincial Hospital for the Insane, at Halifax, Nova Scotia, in his latest report, of date 1879, announces that he has what may be conveniently called the *Murray pattern** of protection bed in use, and that he purposes extending its use.† He says, (p. 6 of his report, which is a State Blue Book):

"Those who would be on foot all night, pounding doors, screaming, destroying their bedding, or polluting the walls and floors of their rooms, are enabled to sleep the greatest part of the night by means of the protective bed, which keeps them comfortable, and prevents them from wearing themselves out by constant restlessness—the prominent feature in acute mania. The use of sedative, antispasmodic, and narcotic medicines is superseded. A draught

* From the name of the institution in which it has long been used.

† It is noteworthy that, on the one hand, nobody who has tried some such bed has (so far as I know) given up its use, or spoken otherwise than favorably of its utility; whereas no objector to or caviler at the bed has himself tried it; and the opinions of those who speak and write so freely and so frequently in utter ignorance can be possessed of no sort of value.

to quiet a patient is very rarely required to be given, and when given is not with the intention of quieting, but of producing some necessary therapeutic effect."

"Eleven protection beds are now in the wards, and more are required. They are similar to those used at the Murray Royal Institution, Perth, Scotland, * * * and also in use in most asylums of the Dominion and United States.* Their use is *necessary* for paralytics and epileptics, who roll out of ordinary beds and hurt themselves, or who throw off the clothes; also for those who are destructive, and injure themselves. For ordinary use they are as convenient and comfortable† as an ordinary bed, and cost about the same sum," (p. 19).

"Four dozen bedsteads are required to supply those who are sleeping on the floor, to replace the worn-out, and to occupy the space into which the patients must be crowded. They should be of the protective pattern, because, though but little more costly,‡ they serve all the purposes of an ordinary bed in a superior manner, and can be used for special cases, if required, (p. 22).

Here there is obviously entire confidence in the usefulness of the protection bed, and in its adaptability to a great many conditions of enfeeblement or disease. But there was apparently equal confidence in its efficacy as a "conservative" appliance on the part of one of the most distinguished and most experienced asylum physicians of our own country, who was in the habit many years ago of applying it "to the aged, weak, worn-out; the restless from malaise and exhaustion; the abraders, rubbers, nudifiers, and those with bed-sores; for, in addition to its stuffed sides, it may contain water-

* This is another point in favor of the utility of such beds—that they are in use in the important State asylums of the British provinces of North America, as well as of those of the American Union.

† Invalids themselves find them *more* comfortable, for they manifest a decided preference for protection beds; in other words, they feel or think themselves really "protected" in them.

‡ I had occasion to ascertain, for the information of the Government of New South Wales, the exact *cost* of those used in the Murray Royal Institution; which cost per bed was as follows: Joiner work, £4 14s.; smith, 14s.; painter, 17s.; total, £6 5s. A working model, including packing-case, costs 80s. In 1864 the same bed, padded, only cost £3 15s. 4d.

cushions, pillows, waterproof sheets,"* and other special apparatus.

Dr. Gilchrist, of Dumfries, too, has, and must have had great confidence in its usefulness, seeing that he has employed it in three important Scotch asylums† for at least a quarter of a century, and that he continues to employ it. In his very last report of the Crichton Royal Institution, and Southern Counties Asylum, both at Dumfries—that for 1878 (39th, p. 7)—he makes the following remarks on what he describes as the *Safety or Preservative Bed*:

“It is an ordinary box-bed, with padded sides and a netted cover—to prevent egress. It is commonly used for two sets of cases: First, for patients who are specially weak and restless, who are thus preserved alike from injury and exhaustion. Second, for patients who are not only weak and restless, but intensely suicidal. For these it is still more useful, as it secures them against self-inflicted intentional injury.”

“It is recorded as having been occupied 483 times (during the year). These occasions, however, refer to only four patients. One person occupied it once, another seven times, a third 110 times, and a fourth 365 times. An explanation of the last case will apply to them all. This case is that of a lady patient, who is the most intensely persistent suicide met within a quarter of a century’s practice. She has been resident for upwards of three years, and has undergone no change for the better. Self-injury is attempted at every possible moment day and night, in every possible way. She has had an attendant day and night for the whole time of her residence; while frequently, and for long periods she has required more than one. Sometimes three or four are required, and the camisole besides. She has occupied the Safety Bed every night during the year, and is consequently recorded as having been restrained 365 times. It is not easy to understand why a bed, which tends to secure rest and sleep, husband’s vitality, prevents exhaustion, and secures against danger, should be called an instrument of restraint.”

* Extracts from a letter of date December, 1868.

† He did so first in the Montrose Royal Asylum.

Now, there is no asylum physician in England who carries out so fully and so far the modern humane system of treatment of his patients as Dr. Gilchrist does; and there has been no English asylum that has been able to compete *longo intervallo* with the Crichton Royal Institution, at Dumfries, as regards the extent to which, and the varied forms in which it has developed what is usually called the "moral" treatment of its inmates. And yet in this Asylum we find the use of a *Conservative Bed* regarded—and very properly so—as the most humane way of dealing with certain classes of dangerous patients.

In 1870 the medical superintendent (now deceased) of one of the large new county asylums of England thus addressed me: "I have long thought of writing to ask if you will kindly inform me where I can find an account of the construction of your locked beds, which you are said to find so useful in cases of general paralysis? It has sometimes seemed to me that, in certain cases of that disease, in an advanced stage, the use of such a bed might be fraught at once with safety, economy and humanity." After receiving drawings and descriptions he wrote: "Although the look of it is not attractive, I am certain it must be extremely useful. * * * What there is of restraint in your bed, more than in the contrivance of a *padded room*, which is nightly locked on a patient, I am unable to see. * * Although I can not promise at present to make trial of the protection bed, I have always had it in view at a time when I might take independent action to prove its utility."

Another correspondent—now retired from office—who was for a quarter of a century at the head of a much more important public asylum, during which he had a large experience of some form of protection bed,

writing me in 1868, remarked that, "in the worst light in which it can be viewed, it is nothing more than a *padded room* upon a small scale."*

But I do not regard the comparison with a padded room as at all an apt one; because, as was pointed out in my previous paper, in a padded room a patient is locked in, and is unattended and unseen, unless at intervals, which may be as much as ten or twelve hours at a time; whereas, in a protection bed, there is no necessary locking of any kind,† and the patient is in a well-lighted, well-warmed sick room, tended night and day by special nurses. The instances in which the lid requires to be applied at all are rare, compared with those in which the sides, or one side only, or the lowness of the bottom of the bedstead above the floor, render the use of such a bed desirable.

The superintendent of another of the newest county asylums of England—that for Berkshire, at Moultsford, in his very first report (in 1872, p. 30)—informs us that "a certain number of *crib* bedsteads, some of them with *padded sides*, were specially ordered for epileptic patients."

A second experienced asylum superintendent, who familiarized himself some years ago with the practice of American asylums, wrote me in 1868: "Your views regarding the protection bed correspond very closely with those of the American superintendents. In fact, your words remind me very forcibly of what Dr. Gray,

* Conolly, on the other hand, spoke of his padded room as "a complete bed," (*Treatment of the Insane without Mechanical Restraints*, p. 45, 1856). But in the absence of such padded rooms he gives it as his opinion that certain patients can not be "safely placed in an ordinary sleeping room unless they are fastened to the bedstead!" (p. 49).

† At present, for instance, in the Murray Royal Institution, 10 per cent of the bedsteads in use are of the protection pattern. But in no case is the lid used, and only in one instance is the folding side fastened up to prevent an epileptic rolling out during frequent fits.

of the New York State Asylum, said—that he was convinced he had saved patients' lives by keeping them locked in it, when they were disposed to exhaust themselves by being constantly on their feet. The medical superintendent of the Indiana Asylum remarked to me regarding a patient who was locked in one, * * * that she was getting quite fat there.”*

The proprietor of, and physician to a large English private asylum, writing me, in November, 1878, for particulars concerning the construction of protection beds, remarked: “I almost doubt whether I could use it in England with the present staff of Commissioners.† However, there are differences of opinion on the subject of restraint even among them.” This is a slight, but it is a significant indication of the mischievous influence of the English Lunacy Commissioners in repressing freedom of action among the superintendents of English asylums.

On the other hand, the medical head of one of the leading State asylums of the American Union wrote me in August, 1878: “I have had occasion within the last year to send to a superintendent in another of our States your remarks, in one of your annual reports, upon the protection bed. It was of value to him in a time of need.” In other words, while in England the terrorism of Lunacy Boards and Lunacy Laws prevents freedom of action and proper action on the part of asy-

* The Inspector of Asylums for the province of Ontario, reporting on the London (Canada) Asylum, in 1877, refers, among other instances of mechanical restraint, to “two men confined in crib beds, with muffs on. The restraint in every instance appeared to be *absolutely necessary*,” (Report of said Asylum for 1877, p. 14).

† If my correspondent will refer to the Twenty-Third Report of the English Commissioners, (for 1869, p. 142), he will find that these authorities themselves recommend for certain classes of patients the provision of “low padded bedsteads,” which involve at least sides such as all forms of protection beds possess.

lum physicians, in America the physicians of asylums, public and private, seek only for that which is most suitable in any given emergency, and having found it forthwith use it.

Another distinguished American asylum physician—now retired from office—in May, 1878, thus addressed me on the subject of the protection bed: “I think that your views would be generally endorsed by the superintendents of insane asylums in this country.”

At the meeting of the American Association of Asylum Superintendents in 1874, Dr. Ranney, of the Wisconsin Hospital for the Insane at Madison, said: “In cases of suicidal patients, such restraint as is implied in the use of the *covered bed* or crib, seems to me eminently appropriate at night. It affords a full equivalent for watching or other supervision, and it is less liable to abridge sleep than any other measures affording the needed security.”*

Illustrations of the mischievous results of the *non-use* of some form of protection bed in cases in which its employment is obviously indicated, are simply innumerable, and are of incessant occurrence in all parts of *England*.

In the first place, its non-use offers endless facilities for self-injury; and in the second, it exposes unfortunate patients to the violence—necessary in many cases, it may be, in the absence of mechanical restraint—of attendants. One simple form of the latter source of injury is the forcible dressing of patients, who should be allowed to remain undisturbed in bed. In English asylums it appears to be a common ambition of superintendents, in order, apparently, to ingratiate themselves with Lunacy Commissioners, to have a minimum number of persons *in bed* for any cause; the result of

* As quoted in the *Journal of Mental Science*, vol. xxii, 1877, p. 146.

VOL. XXXVI.—No. IV.—C.

which ambition is that poor, feeble creatures, who ought never to be out of bed, or at least never raised from bed, dressed, and made to sit among the stronger and more or less unruly occupants of a sitting room or gallery, are compelled to figure, for appearance sake, among the rank and file of the vigorous. Under such circumstances the said Commissioners issue congratulations "all round," telling us in their blue books that only some trifling percentage of patients were found in bed in a given asylum—not connecting this fact in any way with that other fact, which may appear in another part of the very same official "entry," and which refers to the large mortality.

I have been many a time both grieved and disgusted in passing through the wards of English asylums—which English lunacy authorities never tire of telling us are the best in the world—to see scores of pallid, thin, motionless "objects" sitting on benches or in arm chairs, obviously taking no interest in anything, having no kind of enjoyment in life, the power of sensation being scarcely left to them. Much better is it to see the restless, mercurial inmate of an American asylum pacing ward or grounds, with his hands restrained by the camisole or some of its substitutes, and when exhausted, tranquilly sleeping in his protection bed. In the one case there is life and hope, in the other apparently no hope but of and in death.

In all probability, such injuries as are described in the *British Medical Journal* for 1876, (vol. ii, p. 246), in a leader on the "Alleged Ill-treatment of Lunatics," would not occur were such appliances as protection beds employed in proper cases. Regarding the result of a coroner's inquest in one case of fatal injury attributed to *attendants*, we are told that there were "twenty-one ribs fractured, an ulcer in the stomach, and a hole

in the peritoneum," which hole, further, is described "as due to *force*, and not to disease. * * *

The lower ribs had been broken by *great violence, such as blows or kicks*, and the upper ribs by indirect violence.

Violence repeated from time to time would re-break the ribs, and he (one of the medical witnesses) found some of them had been re-broken. The ribs were not exceptionally brittle, and one of the broken ribs which had become re-united required a considerable amount of force on witnesses' part to re-break it. * * *

He should think the fracture of the breast-bone was caused by some one *kneeling* upon the deceased. Fractures of the breast-bone were very rare, and in nearly all cases occurred from direct violence."

A reviewer in the New Sydenham Society's *Retrospect* for 1869-70, of a whole series of cases of *rib-fracture* in the insane, found "that the existence of most of these fractures has only been discovered *after death*; that the fractures have nearly all been *very extensive*. He then states that "paretic patients, in a certain stage of their malady, are known to be furiously excited. They *throw themselves about with reckless violence*. They frequently attack the bystanders, and they thus often become engaged in *scuffles*. They are, consequently, exposed to *all kinds of blows and falls*."*

The common sense inference from such records of "accidents" is, that all these fatal injuries might surely have been easily *prevented* by the simple expedient of confining the patient to bed.† But, in the present state of public opinion in England anent the "liberty of the subject," the fruits of which opinion are the wholesale murders and suicides, with other social evils

* Quoted in the *British Medical Journal*, vol. ii, for 1876, p. 247.

† Such a case is to be found in the *Lancet*, vol. ii, for 1870, p. 823, in the death of a general paralytic with fractured rib.

innumerable, that are chronicled in every newspaper, and with the mischievous leaven of Conollyism operating among all classes of its lunacy authorities, it is hopeless to expect any material decrease in the number and magnitude of such asylum catastrophes as too frequently form the subject of English coroners' inquests. It is not the less incumbent on us, however, to protest as emphatically as may be against the *manufacture of preventible accidents*—against what is virtually the artificial creation of preventible fatality.

In a paper on "General Paralysis of the Insane," Dr. Boyd, one of the ex-presidents of the Medico-Psychological Association, thus speaks* of two cases:

1. "Very noisy and violent; had to be placed in the *strong room*."

2. "Had picked sores on his face and hands. * * Can not be induced to wear stockings. * * Prefers laying on the floor to his bed."

The late Dr. Mercer, of the East Riding Asylum, Yorkshire, gives a case in the *British Medical Journal* for 1874,† in which "there was no reasonable explanation of the cause * * of an important fracture of the chest * * but the patient's own restlessness.

* * His case was at once diagnosed as one of general paralysis in an advanced stage. * * He got out of bed in the night time, and rambled about the room; and a fellow-patient described how, in the course of his restlessness, he *fell rather heavily and helplessly*. * * He was found by the night attendant, out of bed, tottering about the room. His powers of locomotion * * were becoming much more feeble, and his tendency to *fall heavily* was increasing in an alarming de-

* In the *Journal of Mental Science*, vol. xvii, 1872, pp. 12, 13.

† In a paper on "General Paralysis and Fragilitas Ossium," vol. i, for 1874, pp. 540-1.

gree. * * - He was considered no longer safe in any other than the padded room, and thither he was accordingly carried. Although there was then no injury discoverable upon him, I still consider it quite a probable event that, during his past restlessness, he might have suffered some hurt. * * After he had been two days an inmate of the padded room, a bruise on the right side of his chest * * was pointed out to me by his attendant. * * While in the padded room he tossed and tumbled about a good deal. But there was no evidence—as indeed so complete was the padding there was scarcely any possibility—of his having sustained an additional bodily injury while there.” On post-mortem examination, however, “a transverse fracture of the manubrium of the sternum” was discovered. “*Fracture of the sternum* is a form of injury very rarely witnessed by the busy, general practitioner, and when it is seen, I think I am correct in saying that it usually springs from the application of some strong, *mechanical violence*, such as a cart wheel passing over the chest. It is also a very grave accident, occasioning much anxiety in its treatment.” In this case, the medical witness at the coroner’s inquest “gave it as his decided opinion before the jury, that with such a friable condition of the bones, * * some very *trifling* cause—as, for instance, a *fall* on the floor, which the patient was known to have sustained, and which would not have hurt a healthy person—would be quite sufficient for the production of the fracture. If this patient, instead of having been no earlier than was necessary put into the padded room, had received only such care as would be implied in allowing him, restless and helpless as he was, to knock and tumble about an ordinary bedstead, the discovery of *many additional fractures* of the chest, with their common attendants of pene-

trated pleura, pleuro-pneumonia and empyema would have been a more than probable event."

"As a principle of practice, then," Dr. Mercer goes on to say, "the case illustrates how indispensable are good *padded rooms* in sufficient number for the proper equipment of an asylum."

The inference which I draw from Dr. Mercer's instructive facts is, however, not that padded rooms are essential appliances of a good asylum, but that protection beds are. It is at least a singular coincidence that it is just in England where *padded rooms* are most frequent, that *broken bones* are even more so!*

Again, the *Report of the Friends' Retreat, York*, for 1870, (p. 12), speaking of a case of hysterical mania, remarks that "the safety of the patient required for weeks the united service of *four*, and sometimes *six attendants both day and night*." Now, not only is this an expensive service, not only are few asylums possessed of such a staff as to afford such a measure of attention to *one* patient, but, as may be illustrated by every annual blue book of the English Lunacy Commissioners, it is precisely in and at the hands of *attendants*, that "accidents" are most apt to happen to asylum patients.

In some asylums, such troublesome, unmanageable patients are placed in the "padded" or "strong" rooms, where they are at perfect liberty to do themselves fatal mischief of various kinds. The late eminent Dutch physician, Professor Schroeder Van der Kolt, who ridiculed "non-restraint" in acute mania as both unscientific and harmful, rendered padded rooms unnecessary in any of the Netherlands asylums, by introducing into them what he called "confining chairs."†

* *Vide* article on "Rib-fracture in English Asylums." AMERICAN JOURNAL OF INSANITY for July, 1879.

† Translation of his work on *Mental Diseases* by Dr. Rudall. London, 1870, p. 50.

Dr. Blandford, of St. George's Hospital, London, in his *Lectures on the Treatment, Medical and Legal, of Insane patients*, (1871, pp. 208 and 210), recommends *mechanical* restraint in a chair during artificial alimentation as preferable to the application of *manual* restraint, regarding it as at once more efficacious and less liable to lead to injury. In other words, he makes use, as so many of his *confrères* in all parts of the world do, under similar circumstances, of what may be called a "confining chair" for the time being.

He says: "Compare a patient struggling for fifteen to thirty minutes in the hands of three or four attendants, with one fastened with sheets in a chair for five minutes. Let both be *seen* before judgment is passed."

Again, speaking of exhausted melancholiacs, he remarks, (p. 211): "Rather than run any risk of exposure, I would employ mechanical restraint, and fasten them in bed"—and very properly.

It must be obvious, however, that if an experienced physician like Dr. Blandford finds the risk of accidents great from the restraint of *attendants*, in his own presence, during the day, and for only fifteen to thirty minutes, it must be infinitely greater where a patient has to be entrusted to the care of attendants night and day for weeks and months consecutively; in which case the risks are equal, whether the unfortunate invalid is by force kept in bed, or permitted to wander about out of it.

In certain states, insane patients "wear themselves out with incessant and fatiguing exertion. * * It is *exhaustion* that kills in such cases," says Dr. Blandford (p. 228). And no doubt it does, if it is permitted. But ought it to be permitted by any physician with the slightest pretension to either common sense or common humanity?

In 1871, there was an inquiry at the Sheffield Police Court, concerning an alleged "Shocking Outrage on a Lunatic" in the lunatic wards of the Union Workhouse of that city. It was stated that "she was a raving lunatic when admitted, and was tied down in bed."* And there is ample evidence to show that this is the ordinary treatment, not only of maniacs, but of cases of delirium tremens, fever delirium,† and other forms of delirium, in general and special hospitals, as well as in workhouses throughout England.

Between the tying down in bed in such cases, and leaving the patient thereafter, unless at long intervals, unattended, and the application of the protection bed in well-appointed sick rooms, there can, I think, be no proper comparison.

Some of the curious uses to which *padded rooms* and the mechanical force of *attendants* are applied in the professedly "non-restraint" asylums of England, may be gathered from the following account voluntarily given to me by the superintendent of one of the best known of them, in 1876:

"Miss———(an attendant) has often sat in a padded room holding a troublesome patient. At other times there were two nurses in the room holding the patient. She has also sat outside the padded room door to keep the patient in the room, and frequently another patient has been placed at the same door for the same purpose," (instead of an attendant, I presume). "This is not considered *seclusion*, and is not recorded as such" in the books which the Lunacy Board requires every public asylum to keep.

* *Daily Telegraph*, November 16, 1871. We are told, too, that, "although she was in a sickly state, a strait-jacket was placed on her."

† Where some such means of restraint are not resorted to, we have to deplore such "accidents" as the suicide of Dr. Brunton, of the Paisley Infirmary, in 1876. (*Vide British Medical Journal*, vol. ii, for 1876, pp. 698, 697, and 663).

Moreover, "Miss —— has sat holding a troublesome patient on each side of her on a seat in the day room, with another excited patient at her feet on the floor, her (the attendant's) foot holding down the patient's dress to prevent her rising. All these *tricks* are known to the superintendent. But they are neither seclusion nor *restraint*," their object being to prevent the use, in proper cases, of any form of either seclusion or restraint. Whatever be the effect of such "tricks" upon patients, they have a demoralizing effect upon attendants, who, in their disgust at proceedings which even they consider underhand and dishonorable, not unfrequently take the earliest opportunity of seeking service in some "restraint" asylum. Nor are Lunacy Commissioners always, or perhaps often imposed upon by such disingenuous *ruses*; for they have themselves described them to me in terms of loathing.

.

THE STRUCTURE OF THE VESSELS OF THE NERVOUS CENTERS IN HEALTH, AND THEIR CHANGES IN DISEASE.

BY THEODORE DEECKE.

V.

Before I proceed to the special description of the changes in the capillary system of the nervous centers, which I have observed in the brains of persons who have died insane, I wish to discuss a few general questions of importance. When I speak of the brain of a person who has died insane, I certainly consider insanity as an evidence of a chronic and diffuse organic disease of the brain. From a pathological point of view, however, I believe it not justifiable to exclude from consideration such cases of acute and localized affections of the cerebrum and its meninges, as meningitis, insolation, cerebritis, septicæmic infection, which are so frequently combined with symptoms of mental disturbances, and by whose action conditions may develop that must be regarded, not uncommonly, as the very predisposing causes of insanity. Etiologically and physiologically the knowledge of these morbid processes is of the greatest importance for the right understanding of the conditions which have led to a prolonged disorder of the organ.

The theory has been advanced by various authors, that insanity in its early stages is a mere functional disease, that disturbances of the encephalic circulation, that hyperæmia of the brain on the one side, or anæmia on the other, were sufficient causes to interfere directly with the normal functions of the organ, without

having produced any material or structural changes. Even in our days attention is called, over and over again, to the similitude between the condition of the brain in insanity and the arrest or the conversion of its function during sleep; or its excitement and perversion of function, as, for example, in acute alcoholic intoxication. But all these theories have accomplished little for a better understanding of the subject.

The theory that any alteration in the function of an organ, or of its constituents, could occur without being concomitant with structural changes, is directly in opposition to acknowledged physiological principles. In every living being every histological element is subjected to a continual change of its constituents, and the nature of the function of any organ, or of its constituents, depends upon the nature of the changes which take place. This has never been doubted, and it holds true for pathological, as well as for the normal physiological processes of life. An organic entity in the state of life represents a perfect oneness, an insoluble unity of form, composition and function. Therefore one form is not equal to another, and the one is not equal to itself from one moment to the other, although both are similar, and we are not able even in thought to separate the function from the substance which performs the function, or the substance from the form under which it appears.

Alteration, therefore, in the blood supply of an organ, the state of fullness or emptiness of its vascular apparatus must evidently be accompanied by structural changes; first, at least, in the histological elements of the blood ducts themselves. The quality and the quantity of blood, then, must affect, secondarily, the affinity of all the structural elements of the organ to the nutrient fluid, as soon as this comes into contact with them, and the result of this changing affinity will

necessarily be an alteration of the elements in composition, form and function. Whether these continuous alterations fluctuate inside the limits of normal physiological processes or not, can only be dependent upon the degree and the nature of the changes in the affinity which have occurred.

In a preceding article in the January number of this JOURNAL, I called attention to the fact that even inside the limits of physiological conditions, in the capillary circulation in the nervous centers, changes take place, of which permanent material traces can be observed. I mentioned this fact for the reason that the peculiar degeneration, referred to, has been described by various authors, as Lubimoff, Arndt, Schüle, Adler, Neelson and others, as evidences of a pathological affection of the brain, an opinion with which I can not fully agree. I consider them as pathological only when they are found in large numbers, and when other lesions of the nervous tissue are demonstrable, from the presence of which, the conclusion can be drawn that the organ has suffered from disorders in its nutrition.

The reason why the condition of the brain in its state of converted activity during sleep is so frequently placed in similitude with the state of the brain in insanity, is, that there is an apparent impairment and irregularity of mental functions, physiologically, perhaps, explainable; and the same may be said, in a measure, in regard to the comparison of insanity with the phenomena of intoxication. This similitude they seem to cite to be the more striking, as in the one case, during sleep, they claimed that the inactivity of the organ was due to a state of marked anæmia, a condition frequently connected with insanity; while in alcoholic intoxication the organ has been said to be in a high state of congestion, and at the same time under the in-

fluence of a poisonous substance introduced into the blood. Both of these theories, however, rest upon a mere hypothetical foundation, and not upon facts.

As to the theory of the anæmic condition of the brain during sleep, it must be said that this has not been proved neither by the reasons brought forward by Blumenbach, nor by the experiments of Fleming concerning the effect of compressing the carotid arteries on the functions of the brain, nor by those made by Arthur Durham, Hammond and others. Even the result of Hughling Jackson's ophthalmoscopic observations during sleep do not permit of any conclusions concerning the capillary circulation in the mass of the cerebrum itself.

In the case related by Blumenbach, where after recovery from a fracture of the frontal bone near the coronal suture, a hiatus remained, which was only covered by the integument, the changes between the convex and the concave appearance of the chasm, the former when the person was awake, the latter when he was sleeping, were apparently due to alterations in the movements of the cerebro-spinal fluid. Whether the brain itself at the one or the other time was in a collapsed condition of course does not follow. When, however, Hammond states, in support of Blumenbach's view of the collapse of the brain during sleep, that in infants the portion of the scalp covering the anterior fontanelle is always depressed during sleep and elevated during wakefulness, I must say that this is the reverse of what I have observed, and that this statement is not in accordance with the figures of the sphygmographic tracings which I have repeatedly taken at the point in question from children in perfect health.

The temporary unconsciousness and insensibility produced by compressing the carotid arteries, as observed

by Fleming, has apparently nothing to do with physiological sleep; no more than the latter has with the unconsciousness during or after an epileptic fit or during fainting. And the results from the experiments of Durham and Hammond, aside from the abnormal conditions connected with the gross surgical injury, the venous congestion produced by the use of chloroform, or from the conditions brought about by the administration of opium, are at least very problematical. For, it can not be seen how far the simple ocular inspection of a small portion of the exposed pia mater justifies the drawing of conclusions concerning the condition of the substance of the brain itself, especially since we have gained a more complete knowledge of its complicated vascular arrangements.

Moreover, this *humoral* physiology does not suffice to explain the phenomenon of sleep. It does not give us the slightest idea of the condition of the histological elements of that prominent part of the nervous centers which is subjected to those periodical times of rest and apparent inactivity. That its constituent elements can not be inactive, in the proper sense of the word, is not doubted by anybody, since, after the apparent rest, they are fit again to eliminate living forces with renewed energy. We must suppose, therefore, that during sleep processes are going on, different, not only in degree, from those connected with the visible manifestations of life, but different in their essential nature. Now, if it should be possible here, perhaps only to pave the way for a closer insight into the nature of these processes, I believe this will also throw at least some light upon those which, according to anatomical facts, observed, we must suppose, have led to the establishment of the abnormal conditions of life and life actions. In a former one of this series of articles, I have already

touched upon some points which come here into consideration, but the importance of the question may excuse a few necessary repetitions.

The theory of the existence of an anæmic state of the brain during sleep, seems to be, to begin with, not supported by the mechanical phenomena connected with its occurrence, nor by our daily experience. During sleep, we are in the habit of placing the body in a horizontal position. When the head rests in the same horizontal line with the longitudinal axis of the body, or sinks below that line, a very unpleasant feeling of drowsiness will precede the sleep; the sleep will be deeper than usual, and the person will be aroused with difficulty; he will not feel refreshed after the rest, and pain or dullness in the head will follow. This has always been experienced, and has developed the habit of giving the head during sleep, a slightly elevated position—some six or eight inches above the longitudinal axis of the body. But what is the cause of those phenomena? According to the law of gravitation, the horizontal position of the body must evidently facilitate the flow of the blood to the head. In the position of the latter, however, below the horizontal axis of the whole body, an unusual and abnormal accumulation of the blood must result; and I think it is quite rational to ascribe to this circumstance, the phenomena above referred to. This is the simplest explanation, yet its correctness has been proved, without any vivisection, by the fact that the same mechanical principle which was the cause of the phenomena observed, was the cause of preventing their development; the slightly elevated position of the head above the line of the horizontal axis of the body, removes, at once, all the difficulties.

Now, in view of this universal experience, I do not see how the theory of an anæmic condition of the brain in the production of sleep, can possibly be sustained. The fact that sleep may occasionally occur in all positions the body may assume, can not be brought forward as an argument in favor of the theory, and I certainly do not suppose that the horizontal position of the body during sleep, by itself, has anything to do with the production of sleep; but the choice of position has, nevertheless, a physiological foundation. The horizontal position of the body apparently favors a more equal distribution of the blood through it, and relieves the heart, temporarily, of a part of its work. The current of the blood becomes slower, the respirations are diminished and more regular. This, however, does not show that any organ, during that time, should be deprived of its normal quantity of nutrient fluid.

It is my opinion that the theory of the anæmic condition of the brain during sleep has its foundation in the comparison with the periodical fluctuations in the blood supply of other organs of the body during their states of excited or diminished activity. But this is entirely wrong. The nervous tissue is not to be compared with the secreting tissue of a gland; it is not an erectile tissue, and the chemical processes by which it accumulates its power and by which it eliminates its energy, are widely different from those which take place in the other tissues of the different organs of the body. The causes, therefore, of the periodical states of rest and activity of the brain, must be sought in other conditions than the supposed variations in the supply of nutrient material to the organ. If there is any similitude between the sleeping brain and its perverted function in insanity—and a certain resemblance can not be denied—it will become necessary to look for the meaning of it from another point of view.

As to the condition of the brain in alcoholic intoxication, and the resemblance between the symptoms connected with it and the symptoms observed in certain forms of insanity, it must not be forgotten, that in the former case, we have to do with the action of a palpable substance introduced into the blood, the alcohol, upon the tissues of the body and their change of matter. It is true, the full history of alcohol in the animal system can not yet be given, but we know that only a limited quantity during a certain time participates in the organic change of matter, while a surplus, if present, passes, undecomposed, through the system, and is re-excreted by the way of the lungs, the skin, the kidneys and the intestinal canal, on its way variously interfering with the proper nutrition of the tissues. That part of the alcohol which enters into the change of matter, acts as a stimulant, and the quantity which may be consumed in this way is variable, dependent upon individual circumstances, and upon the degree of dilution in which it is introduced. By its action, the general tonus in the arterial system is increased, and an acceleration of the blood current ensues. Its principal action is upon the nervous centers, especially the grey substance of the brain; its functional activity is augmented, while at the same time a general feeling of pleasure and satisfaction is experienced. All this is *stimulation* of function, a process entirely inside the limits of physiological life actions. It can not, in this degree, be considered as injurious to health, especially not to the health of an organ like the brain, which is during almost all of life in a state of growth and development. On the contrary, the *stimulation* develops its strength, and lays open more readily its energies.

From this condition, of course, *intoxication* presents quite a different feature. It is a state due to the presence of a surplus of alcoholic substances in the body, which can not be taken up in the system. This surplus interferes with the digestion,* it interferes with the general circulation in the body; in the one part producing a venous stasis and dilatation of the veins, in the other, an atonic condition of the arteries, combined with a state of anæmia in the capillary system. The phenomena of intoxication are not, in fact, combined, as commonly accepted, with an active congestion, but with the capillary anæmia which follows the congestion, and with its consequences, viz: the deprival of the tissue of nutrient material, and the changes which are thereby induced. We add to it, that this takes place under the direct influence of a substance which can not be assimilated or readily disposed of, although it penetrates all tissues of the body, and which, therefore, under such conditions, acts like a poison. Aside from this, we must further conclude from chemical experiences that the admixture of alcohol to the blood greatly alters its affinity to the gaseous substances carried to and eliminated from the tissues, and its capacity of keeping them in solution.

Now in regard to the series of symptoms connected with alcoholic intoxication, and to those presented in insanity, the existence of some resemblance must be admitted. We will see later on, in how far there

* The results of experiments quite recently laid before the "Société de Biologie," in Paris, showed, that in a mixture of 200 grammes of meat and 75 grammes of eau de vie introduced into the stomach of a dog, not a trace of digestion, even after six hours, had commenced. The stomach contained, after that time, the 200 grammes of meat, perfectly intact, and 160 grammes of a slightly acid liquid, which proved to be entirely incapable of producing artificial digestion. In mixtures of 200 grammes of meat and 25 grammes of eau de vie or 150 grammes of wine, the digestion was found to be accelerated. —*Progrès Médical*, February 21, 1880.

is also a correspondence between the causes of the affection of the organ, in producing the conditions which accompany the phenomena observed.

I return to the phenomenon of physiological sleep, and to a closer discussion of the process connected with it.

. . We have seen in the foregoing, that the theory of an anæmic condition of the brain during sleep can not be sustained; the less, as it is not disputed, that the elements of the organ during that time must be most active, at least in one direction, in accumulating power; a large amount of the power, which is destined to be eliminated during the state of being awake. Sleep is the time, to use an image, when the spring of the clock-work is wound up. But what is it, in the living cell, that corresponds to the spring in the clock, and of what kind are the processes which are similar to the winding up of the clock? At first sight it may seem as if the spring corresponded to stored up substance, and the winding up, to the process of storing up material. This may be so, but not in a general sense, since this process takes place continuously during the state of wakening, as well as during sleep. Moreover, the *general* change of matter in a state of health, at least so far as the nitrogenous compounds are concerned, must be considered quantitatively the same during both periods, as I have shown in another article, published in this JOURNAL.* This, therefore, can not be the winding up of the clock.

The key to a right conception of this secret of nature was discovered by Liebig.† This great chemist and physiologist, starting from the observation, that in

* July, 1879. Urea and phosphoric acid in the urine in anæmia.

† Justus v. Liebig: On Fermentation, on the source of muscular power, and on nutrition: *Academie-Berichte, München*, 1869, II, 4.

the processes of organic life the products of the decomposition of the albuminous compounds, by the action of oxygen, exhibited not the slightest similarity to those artificially produced in the laboratories of the chemists, while this was not so with the products of oxydation of the hydro-carbonic radicals, concluded that the process of the formation of carbonic acid by the organic cell was not one of common oxydation. It could not be a decomposition produced by the action of free oxygen upon the carbonic molecules. He propounded, therefore, the theory, that the process was one of dissociation by the action of, chemically already assimilated, that is, intramolecular oxygen. The great consequences and the importance of this ingenious theory for the chemistry of life has but recently been acknowledged, and especially through the efforts of E. Pflüger, in Bonn,* we have gained an insight into those secret workings of nature beyond expectation.

The only apparent difficulty brought forward as an argument against this theory, is the supposition of the spontaneity of the dissociations which it is said to involve. But this has weight only, when we consider a chemical molecule as a system of atoms in a state of static equilibrium. This idea, however, is inconsistent with the phenomena of the specific heat of the bodies, as well as with the principles of the mechanical theory of heat and their consequences. From these, we must conclude that a chemical molecule even in the solid state of aggregation, is a system of atoms in motion against each other, or of oscillating molecules of different orders, subjected to the changing influences of inherent and transmitted forces or motions. As now, a

* Ueber die physiologische Verbrennung in den lebendigen Organismen Pflüger. Archiv: Vol. X, 6 and 7, *vide* this JOURNAL, October, 1875. *Retrospect of German Literature.*

dynamic equilibrium, *de facto*, does not exist in any system in nature, but only arrangements which are more or less remote from, or approach a state of equilibrium, it is evident that the process of the dissociation of a system is but a special case of the general conversions of motions, which everywhere and continuously take place in nature. Clausius, in his researches into the mechanical theory of heat, has mathematically shown that the larger the number of atoms or of molecules of different orders, of which a given system consists, that the more differentiated is its intramolecular motion, the greater the difference between this and the *vis viva* of the molecule, the more remote the system from a state of dynamic equilibrium, and the more liable to dissociate. But the process of dissociation is not a function of the molecular constitution of the system, and not separated from the process of growth of the molecule by a predefined line of demarcation.

The nature of the former process is, that in the polymerous constitution of the growing molecule, a metamerism is produced; that is, an interchanging of the atoms. Under the formation of carbonic acid, the part of the chemical, potential energy, consumed by this process is converted into heat, that is, increased motion of the newly formed carbonic acid molecule. In the violent oscillations of each of these seceding molecules, there is a certain amount of force eliminated, transferable to neighboring systems.

The processes of dissociation, therefore, impulsive in their nature, appear to be themselves the result of impulses; of impulses of external origin, the energy of which, to a certain extent, must determine the nature and the products of the dissociation. Just as the nature of the curve of a celestial body in motion—whether it describes an ellipse, a parabola or a hyperbola—is not dependent upon the direction, but upon the energy of

the first impulse, or the primary velocity of the body, and upon its distance from the center of gravitation—a simile in which the distance from the center of gravitation is equal to the constitution of the molecule, the magnitude of the impulse to the act of dissociation, and the curve equal to its effect. .

In the light of these considerations, we may conceive, without difficulty, the growing of a living molecule as a process, not in itself limited; and also that the entrance of each new atom into the molecule increases its intramolecular motion or energy; we may also conceive the dissociation of the molecules as a process neither predefined in its beginning nor in its termination, but dependent, though not exclusively, upon the nature of the inciting impulse.

Thus we see that the organism possesses, in the property of the organic molecule, to grow and to increase its intramolecular motion or energy, an arrangement which, like the spring of the clock, permits of an accumulation of force; the spring of the clock is the intramolecular motion or tension, the winding up of the spring the growth of the molecule, or the accumulation of intramolecular force, which is materially represented by the amount of intramolecular oxygen; while by the processes of dissociation with the seceding carbonic acid molecules, living forces are eliminated, by which a certain amount of work, as in the clock, is performed without necessitating an immediate restitution, at the place where they are eliminated. But as soon as the spring has run down, the clock-work stops; and as soon as the intramolecular motion has lost a certain amount of its intensity, the formation of carbonic acid ceases, and with this the external manifestations of life of the molecule. Yet this cessation is not the death of the molecule; the clock-work only stopped, while death would be the destruction of the clock.

It is evident that this property of the living molecule is of universal existence, and that each organic element in the state of life, each cell, every tissue of the organism is more or less subjected to similar periodical changes of the chemical processes, connected with their manifestations of life. In the life of no other tissue, however, will this change be experienced with more distinctness than in the nervous tissue; and especially in that part of the nerve tissue, the grey substance of the brain, in which we locate the seat of the mechanism, which is concerned in the manifestations of psychical life-action, here especially, where, apparently, the function is coincident with the consciousness of the function. Yet, it is important to remark, that the functions of which we really become conscious are those which are in connection with our relations to the external world. It is hereby shown, on the one side, that consciousness is the experience of the sum of our existence in opposition to the external world; and, on the other, that we have no experience of that part of the function of the grey substance of the brain, which relates to its own life and existence.

We have seen, in the foregoing, that from the two series of processes, connected with organic life, the growth of the living molecule and its dissociations, the nature of the latter were dependent upon the intensity or the nature of the inciting impulse. The fact of the connection of the living molecules of the grey substance of the brain with the external world, by the peripheric expansions, which receive and conduct the impulses from the outward processes to the constituent elements of the organ, is of the utmost importance. This is one of the conditions of the organ. In the state of acting with the consciousness of our relations to the external world, we say we are awake. During sleep we are not

conscious of these relations. It is, therefore, evident that those processes in the living molecules of the brain, which are incited by the action of external impulses, that is, the processes of dissociation, quantitatively and peculiar in quality, must prevail during the state of being awake. During sleep the dissociations must be of a different nature, since the impulses are of different character, and the processes of the growth of the molecule are becoming predominant.

We shut out, therefore, for the purpose of getting asleep, as much as possible, the direct influences of impulses from the external world. We seek for the darkness, for silence, and a comfortable warmth of our surroundings, and select a place where the body can rest in an easy position. And this exclusion from the direct influences of the external world is the first and most important physiological condition for the production of sleep, and not the supposed anæmia of the organ, which is expected to restore during that time its lost energies by an increased assimilation.

The awakening from the normal healthy sleep is a sudden act. The impulses originating from a ray of light, from a sound, from an unusual taste or odor, from an irritation of the skin, or its prolongation, the mucous membrane of the digestive tract, of the bladder, are sufficient to incite dissociations of a nature that are capable of inciting numerous others. A frequent repetition of the impulses will become necessary, in order to keep up the incited condition; otherwise the process stops, and its effect dies away; the organ sinks back into the preceding condition. This takes place when there is still a lack of intramolecular motion or tension. In the other case the slightest impulse may suffice to produce a series of dissociations, until again a low degree of tension in the molecule is reached.

Since now, as we have seen above, the nature and the effect of the dissociations is dependent upon the nature or the intensity of the impulse, it is not excluded that dissociations of some kind continuously take place. We distinguish, as is well known, a third condition of the brain, lying between the state of wakening and sleep—the state of dreaming—which, again, must be connected with certain processes of dissociation, corresponding to the nature of the impulses by which they are incited. And there is no reason why it should not be justifiable to presume the possibility of the occurrence of still other conditions, different from those before mentioned, especially when substances are introduced into the change of matter which, in the one or the other way, are capable of acting impulsively upon the living molecules of the grey substance of the brain. The phenomena of stimulation may possibly be designated as an illustration of a physiological condition of the brain of this order.

The conditions which give rise to symptoms of a pathological character may be explained, to some extent at least, by the principles already enunciated in this article. In the first instance, the degree of the nutrition of the tissues comes into consideration. In regard to the changes in the conditions of an organ, inside the limits of physiological life, we have seen that the participation of the circulatory apparatus in the changes is not of primary, but of secondary importance. This is not so in pathological affections, which always arise in and are primarily combined with alterations in the vascular system; a fact that shows, on the one side, the remarkable difference between the two conditions, and, on the other, explains in what way the latter conditions may be developed out of the former

If we compare, therefore, the condition of the brain of persons who have died insane with that of a normal brain, for example, of a person who died by an accident in full state of health, there will be the remarkable difference observed, that the organ of every person who died under symptoms of insanity exhibits more or less, according to the duration of the affection, an atrophic character, combined with evidences of disturbances in the capillary circulatory system. The origin of these must be looked for in the existence of a prolonged capillary anæmia, as the consequences of pathological alterations in the structure of the capillary vessels themselves. The fact that we frequently find an extraordinary hyperæmic condition of the organ after death, does not prove that this was the general condition during life, and during the disease. It is only an evidence that conditions must have existed in the organ which rendered it liable to abnormal congestions. We must distinguish between two different conditions, with which a prolonged capillary anæmia is connected. In the one the anæmia is due to a stenosis, a contraction of the capillaries; in the other, to a dilatation of the same. In the latter case, evidently, circumstances existed during life which favored changes between anæmic and hyperæmic states of the organ. From the nature of the affection of the capillaries, we must conclude in such cases that the hyperæmia was not one of prolonged duration, that it must have been followed, in every case, by an abnormal emptiness of the dilated vessels, and that the true condition of the organ during life has been one of anæmia.

Atrophy of the brain, which is here, of course, a general term, and not the expression for *one* distinct anatomical change in the tissues, is the common feature of the organ in insanity. In regard to the states present

in the two primary stages of the affection, characterized by the symptoms of melancholia and of mania, it must be said that in both, in consequence of the prolonged anæmia, the processes of the growth of the molecular elements of the grey substance must have been impaired. In the former, in connection with the capillary stenosis, this is followed by an abnormal accumulation of excreted material, and a decrease and an alteration of the processes of dissociation; in the latter, in connection with the dilatation of the capillaries, there is an increase of discharge, and an increase and alteration of the processes of dissociation. Thus one pathological condition, the capillary anæmia, has two distinctly different causes and two effects, similar, but also different in character. From this it is evident that there exists not the slightest similitude between any of these conditions of the brain and its condition during sleep. And the same must be said in regard to the symptoms presented in physiological sleep and in insanity. In sleep there is an entire lack of consciousness, which is not so in insanity, although it is frequently impaired and perverted.

The condition of the brain of the insane has by others, especially French authors, been compared with the condition during the state of dreaming. Yet here also the same argument, as in the former case, must be sustained against the existence of any similitude, perhaps with the only exception that we must presume, in both, alterations in the processes of dissociation. The supposed resemblance between the symptoms and their causes has likewise no foundation. During the state of dreaming the consciousness is suspended in regard to external relations, while the senses are closed as during sleep. In insanity we find, in a measure, the same thing, while the senses are open, a difference which

shows the existence of conditions and processes entirely different in nature.

It remains, therefore, only to consider the condition of the brain in insanity as one throughout altered by pathological processes. The polymerous constitution of molecules of the grey substance must be altered, the processes of dissociation must be of another nature. It will become the task in the future of a new branch of science, of a molecular pathology, to elucidate the causes and the nature of the processes connected with these phenomena. When we proceed to a comparison of the condition of the brain, in insanity and during alcoholic intoxication, we find at once one striking similitude, that is, the anæmic state of the organ in both cases. Yet in the latter this is concomitant with the presence of a foreign substance, which acts like a poison upon the tissues and their change of matter. The condition with its symptoms, is removed as soon as the substance and its immediate effect is removed. Nevertheless it is an acknowledged fact that during the existence of that condition the phenomena observed closely resemble those observed in certain forms of insanity. The resemblance goes even so far that the two primary forms, according to individual circumstances and dispositions, have their simile in the phenomena produced by alcoholic intoxication. Furthermore the alterations in the capillary circulation of the brain and their consequences, artificially produced by the abuse of alcohol, always lead to permanent material changes of a true pathological character, which either manifest their existence under the group of symptoms known as chronic alcoholism, or which produce conditions, connected with graver functional disturbances, and which must be considered as predisposing the organ to the development of that series of affections which is connected with the phenomena insanity.

(TO BE CONTINUED).

PSYCHOLOGICAL RETROSPECT.

ENGLISH PSYCHOLOGICAL LITERATURE.

The Journal of Mental Science, Vol. XXV, April, 1879.

- (1). Contribution to the Study of the Death Rate of Persons in Asylums: Arthur Mitchell, M. D. (2). Uses and Abuses of Chloral Hydrate: George H. Savage, M. D. (3). Five Years of Statistics: P. Maury Deas, M. B. (4). On Forced Alimentation: Frederick Needham, M. D. (5). On the Influence of Age, Sex and Marriage, on the Liability to Insanity: T. Algernon Chapman, M. D. (6). Notes of a Visit to the Idiot Asylum at the Hague: Fletcher Beach, M. B. (7). Two Visits to the Cairo Asylum, 1877 and 1878: H. R. Urquhart, M. D., and William S. Tuke, M. R. C. S. (8). Clinical Notes and Cases. (9). Occasional Notes of the Quarter. (10). Reviews. (11). Psychological Retrospect. (12). Notes and News.

(1). In this article, Dr Mitchell gives, in the form of tables prepared with evident care, the differences between the death rate of the general population, and that of the Asylum of Scotland. It will be impossible to present the author's facts, without reproducing his tables, which want of space forbids. They show, in brief, that the mean annual death rate for the general population of Scotland above the age of ten years, is 1.7 per cent, as compared with 8.3 per cent for the population of asylums.

(2). From the tone of Dr. Savage's article on "Chloral," one would infer that his experience in its employment had been exceptionally unfortunate. He says: "In my opinion, the drug has signally failed in every one of the promises made for it." Continuing the discussion, he says: "I shall consider chloral, first, as a possible cause of insanity, and next as a remedy. As a cause, I have seen its constant use for one or two years produce melancholia, associated with great prostration, loss of flesh and strength, a sallow, worn aspect,

great irritability and nervousness, with strongly suicidal tendencies. I have the experience of several personal friends, men who were working hard with their brains, and who suffered from sleeplessness. These found chloral a boon at first, but by continuing its use, they lost in physical health, and the sleeplessness became more unbearable." Dr. Savage strangely omits to tell us whether at the time of taking the chloral, these persons desisted from their work, and took the much needed brain and bodily rest. If they did not, would it not be as logical to attribute the general break down to overwork? He speaks of a case of insanity following "the suicidal taking of an enormous dose (two ounces) by a person used to excess of stimulants and the habitual use of chloral." He states in defense of attributing the insanity to the chloral, and not to the other serious causes present, that "till the large and almost fatal dose was taken, marked insanity was absent." May not the suicidal act have been the first evidence of "marked insanity?"

Dr. Savage, having expressed his views of the ill-effects of chloral, considers its use: First, in sleeplessness; second, in various forms of insanity; third, in several stages of epilepsy. As a simple, sleep-producing remedy, he believes that other remedies will prove equally effective.

In maniacal excitement, the patients "are controlled and made manageable," and according to some authorities, the sleep induced in the most violent, "saves them from death by exhaustion." Dr. Savage says "this seems probable, but in practice, I find stimulants and abundant light food act just as well." Of recurrent mania with great violence, he says: "The drug has been given in large and repeated doses, gradually increasing, till at length, we have reached two drachms

every four hours, and no beneficial result has followed." We are not surprised that Dr. Savage has been disappointed with chloral used in this manner, nor should we be surprised should unfavorable symptoms arise. Dr. Savage gives no data by which we can judge of all, or even a few of the facts which lead to this wholesale condemnation of chloral. We do not think that he would condemn opium—an agent of known value in insanity—or stimulants, because their use in improper doses, or unassociated with means to improve the general nutrition, have been productive of harm. And it is just to this point that we would direct attention. No remedy of this class can or should be used with any expectation of deriving their full benefit, unless at the same time, attention is paid to the administration to the patient of a sufficient quantity of highly nutritious, easily digested food. We have not felt the hesitancy shown by Dr. Savage, in using chloral in paresis, when needed, paying, at the same time, careful attention to the patient's general condition, as regards digestion and assimilation. In epilepsy, the excitement following convulsions has been controlled by its use, as Dr. Savage has mentioned: Chloral given to a sleepless patient at night, to whom a full supply of proper food has been given during the day, will, we think, in the majority of cases, afford one of the best means at our disposal for producing sleep; but as an agent to quiet maniacal excitement during the day, it possesses little or no value. We think his conclusions hastily drawn, and believe he will yet have occasion to change them.

(3). Dr. Deas, the Superintendent of the Cheshire County Lunatic Asylum, Macclesfield, lays before his readers in this article, "the general statistical results of five years, in regard to those who have been sent for treatment from the districts of Cheshire to which the

asylum is allotted." He also makes some observations bearing upon the question of local differences in the distribution of insanity, which he discussed somewhat at length, in the *Journal of Mental Science*, for April, 1875.

(4). Dr. Frederick Needham has written a suggestive article on "Artificial Alimentation," giving his experience with nutritious enemata. We observe that in employing the œsophageal tube, the Doctor also uses the pump. In our experience of more than twenty years, a pump is not only unnecessary but in some instances may be productive of harm. We notice that Dr. Needham refers simply to beef tea, milk and brandy in nutritive enemata. We would suggest that he will find defibrinated blood of value in certain cases, this having been our experience.

(5). This article is based on an analysis of the statistical tables in the thirty-second report of the Commissioners in Lunacy—(English). The corresponding tables in the thirty-first report Dr. Chapman considers "mere *rudis indigestaque moles*," and asserts that "the effort to extract much valuable meaning from them appears to be an arduous one." Fearing that the tables in continuation of the same series in the thirty-second report may meet a similar fate of neglect which befell those of the thirty-first he has endeavored "if possible to suggest a meaning for them."

The conclusions which he draws are some of them interesting and novel. We shall have to content ourselves with simply mentioning them, referring our readers to the article for further data. His conclusions are:

1. These tables deal with sufficiently large numbers to give satisfactory results.
2. The numbers sent to asylums increase up to thirty-five years of age when twelve per 10,000 living are annually sent, thereafter

the numbers diminish steadily to ten per 10,000 in old age; that if the age on first attack were given, instead of age on admission, and those always more or less congenitally defective were tabulated separately, the result would show a remarkably uniform proclivity to insanity throughout life, from thirty upwards, if not from twenty.

3. Insanity affects males more largely than females from twenty to forty; a gain slightly more from sixty upwards; from forty to sixty females are slightly more prone. If general paralysis be treated separately, then females are much more affected from forty to sixty; at other ages there is an equality.

4. Three-fifths per cent (one in thirty) of those who attain the age of twenty, ultimately become inmates of asylums.

5. The single are sent to asylums in proportion greater than the married as 2.83-1; the widowed as 3.2, *i. e.*, in proportion to the numbers of each in the general population, above twenty years of age, though the actual numbers of single and married admissions are nearly identical.

6. It is almost certain that in the excess of single above married, the excess is due not to celibacy causing insanity, but to insanity or a tendency thereto preventing marriages. If this be so, about one per cent of the single, among the general population, aged twenty to thirty, and about three per cent of those aged, thirty to forty, are so from mental defect, ultimately causing their admission to an asylum.

7. General paralysis is more frequent among males than females, but at the age forty to fifty, when the disease is most frequent, this relative frequency is less marked.

8. Unlike insanity in the mass, general paralysis is hardly more frequent in the single than in the married, a circumstance probably traceable to the comparative rarity of congenital defect in general paralytics.

9. General paralysis results much more frequently than ordinary insanity from causes implying business energy, and the use (and abuse) of the activities of life; much less frequently from defects inherent in the individual.

(6 and 7). In these two articles are contained a description, first, of the Idiot School at the Hague, and, second, a description of the Cairo Asylum, by Drs. Urquhart and Tuke.

(8). Among the clinical notes we notice an account of two cases of recovery, after many years in an asylum, one fifteen, the other eighteen years. They are interesting, as showing that chronicity is now always a bar to recovery.

The Journal of Mental Science, Vol. XXV, July, 1879.

- (1). Notes from the History of My Parrot, in reference to the Nature of Language: By Samuel Wilks, M. D. (2). Case of Paralytic Idiocy, with right-sided Hemiplegia; Epilepsy; Atrophy, with Sclerosis of the Left Hemisphere of the Cerebrum, and of the Right Lobe of the Cerebellum: By Herbert C. Major, M. D. (3). Statistics of Insanity in Australia: By Frederic Norton Manning, M. D. (4). Hyoscyamine and its Uses: By George H. Savage, M. D. (5). The History of the Hereditary Neurosis of the Royal Family of Spain: By William W. Ireland, M. D. (6). Two Cases of General Paralysis: By William MacLeod, M. D. (7). Notes on Criminal Lunacy in France: By D. Hack Tuke, F. R. C. P. (8). Clinical Notes and Cases. (9). Occasional Notes of the Quarter. (10). Reviews. (11). Psychological Retrospect. (12). Notes and News.

(1). The article by Dr. Wilks contains some interesting details, from observations made in the instruction of his parrot in articulate language, especially in their reference to the faculty of speech in the human family.

(2). In this article Dr. Major presents, together with two lithographic plates illustrating the text, an interesting and valuable account of the microscopic appearances in the case mentioned in the title. All parts of the right hemisphere appeared normal. The cortex of the convolutions of the left hemisphere showed a great reduction of the normal thickness, and under low power seemed to be made up of small round cells of uniform size, with here and there only a pyramidal corpuscle, in marked contrast to the cortex of the other hemisphere under the same power. "Close examination with higher powers made it evident that the nerve-cell elements were extremely few, as well as small, ill developed, and deficient in branches. The round branchless bodies were seen to be corpuscles of the

neuroglia, enormously increased in number, at the expense of the other elements." "The capillary network of vessels was notably defective, as compared with the sound hemisphere, but no structural alteration or degeneration of the vessels was detected."

The internal white matter of the hemisphere was in an advanced state of morbid change. In parts this consisted mainly of an undue proportion of nuclei and Deiter's connective tissue cells, mingled with altered and numerically reduced nerve fibers. The right lobe of the cerebrum was atrophied, and the outermost grey layer was thin and wasted.

(3). In this article, Dr. Manning, so well known through his admirable report on lunatic asylums, presents some interesting remarks and statistics concerning Lunacy in Scotland. The Colony of New South Wales was founded in 1788. The population was then 662,212, with 1,829 insane, or one insane person to every 362 inhabitants. The other Colonies of Tasmania, Queensland, South Australia, Victoria and Western Australia have since been founded. In 1804 Tasmania had one insane to every 317. In 1836, South Australia, one to 491. In 1851, Victoria, one to 313. In 1859, Queensland, one to 487. In 1859, Western Australia, one in 419. On the thirty-first of December, 1877, the population of the Colonies was 2,096,732, with 5,876 insane, a proportion of one in every 356 of the population. He gives the insane in proportion to the population in England, at the last date, as one to 368, showing no great difference between the Colonies and England.

(4). Dr. Savage, in his remarks on Hyoscyamine, shows to a certain extent the same skepticism, if we may use the term, as he exhibits in the article on Chloral, already noticed. He also recounts, in connection with hyoscyamine, his experience with tincture of

hyoscyamus. Like most who have used hyoscyamine, Dr. Savage has been confused by the different forms in which it has been presented to the profession, but we fear that he has not made the matter any plainer by the employment of two terms, hyoscyamia and hyoscyamine. He states that he used (1) hyoscyamia, (2) *extractive* hyoscyamine, (Merck), two varieties. What he terms hyoscyamia seems to be the granular greyish white material made and sold by Merck as hyoscyamine. Of what he terms hyoscyamine, although mentioning two varieties, he speaks in his article of using but one—the semi-fluid dark amorphous material, also made by Merck. While doubtless differing in some respects, we have preferred to speak of both these varieties under one head, hyoscyamia, distinguishing in each case whether the white or dark was meant. As we have said, in an article elsewhere published, we have used both varieties in a large number of cases. We have not noticed the disadvantage attending the granular material, which Dr. Savage seems to have found, especially have we failed to observe the loss of appetite. We have used the white preferably in hypodermic injections, and always in much larger doses than Dr. Savage seems to have found effective. In some instances of mere nervous perturbation, as stated elsewhere, we have obtained good effects from doses as small as one-fiftieth of a grain, but never in violent insanity. The dryness of the mouth and fauces we have observed to follow both varieties. Dr. Savage concludes his paper as follows: “I do not believe whipping a tired nervous system with strychnine is good, nor deranging an already deranged brain by belladonna, opium, chloral or hyoseyamine will lead to happy results. We may make a desert and call it peace.”

Dr. Savage will not, we think, have to seek far to find supporters in this statement, but does not strychnine sometimes do a better work than "whipping a tired nervous system," and do chloral, opium, hyoscyamine and belladonna derange in all instances "an already deranged brain?" Do they not, on the contrary, give the deranged brain and body rest while we can "seek nutrient remedies, general hygiene and tonics as our powerful aids in nervous diseases?"

(5). In the History of the Hereditary Neurosis of the Royal Family of Spain, Dr. Ireland has added a valuable chapter to the general subject of heredity, and thrown some light upon the dark chapters of Spanish history.

(6). In the first of the two cases of general paralysis recorded by Dr. MacLeod, an apparent recovery seems to have followed an attack of erysipelas of the head and face. After seeming well he remained in the asylum under observation seven months. Dr. MacLeod's deduction from the case is to "try and imitate nature in the treatment of this disease, say, by counter-irritation." The second case is peculiar, as probably resulting from "the concussion, shock and fright arising from the unexpected firing of the 25-ton gun, when he (the patient) was in near position to its muzzle."

(7). Dr. Tuke's notes on Criminal Lunacy in France are throughout of such general interest that we find it impossible, in the space allotted, to summarize them. Two interesting facts are especially worthy of notice. Of eighty-two insane admitted to the Lunatic Quarter, at Gaillon, facts concerning the *début* of insanity were obtainable in but forty-eight, and of these at least *ten were insane when condemned to punishment*. Of fifty-two epileptics admitted, twelve were simulators.

(8). Among the Clinical Notes and Cases, Dr. Clouston reports, with a drawing, a case in which a syphiloma of the brain had perforated the skull at the summit of the parietal eminence. During life, tapping over this spot, which was the seat of great tenderness, produced convulsions in the leg of the opposite side.

The Journal of Mental Science, October, 1879.

- (1). The Presidential Address Delivered at the Annual Meeting of the Medico-Psychological Association, July 30, 1879: By J. A. Lush, M. P., F. R. C. P. (2). On the Separate Care and Special Medical Treatment of Acute and Curable Cases in Asylums: By J. Wilkie Burman, M. D. (3). A Case of Tumor of the Brain, associated with Epilepsy and Catalepsy: By Fletcher Beach, M. B. (4). A Detached Left Occipital Lobe, and other Abnormalities in the Brain of a Hydrocephalic Imbecile: By A. Campbell Clark, M. B. (5). Spanish Asylums: By Donald Fraser, M. D. (6). After Care: By Rev. H. Hawkins. (7). An Asylum or Hospital Home for Two Hundred Patients; constructed on the principle of adaptation to varied needs and mental states of inhabitants, with Plans: By T. S. Clouston, M. D. (8). Clinical Notes and Cases. (9). Occasional Notes of the Quarter. (10). Reviews. (11). Psychological Retrospect. (12). Notes and News.

(1). Dr. Lush, in his address, deals with the question of increase of lunacy in England, and presents some statistics which offer food for reflection.

The first report of the Commissioners of Lunacy, states that in June, 1846, there were, in England and Wales, 23,000 persons of unsound mind, of whom 18,322 were in detention. From the report for 1878, it is estimated, that, on January 1st, 1879, there were 71,106 persons in England and Wales of unsound mind, an increase of two hundred and fifty per cent. During the same period, the population only increased at the rate of forty-five per cent. Dr. Lush makes, in this connection, another interesting statement that, "between 1846 and 1879, the produce of a penny income tax has risen from £750,000 to £1,750,000, notwithstanding a much greater exemption; and the inhabited house duty has advanced in about a similar

ratio; leaving little doubt that a considerable increase in the paying capabilities of the middle class has been diffused throughout the country." This would seem like a startling statement to some of the theorists who maintain that "poverty makes insanity, and insanity makes us poor."

The following statement is also suggestive: "I need not say to the assemblage, that if we were projecting a new scheme for the care and treatment of lunatics, such a complex system as now exists may not, perhaps, enter into it." After some brief remarks concerning the deductions to be made from the statistics above quoted, Dr. Lush devotes the balance of his address to a consideration of the recent discussion in England concerning Private Lunatic Asylums. These are not alone applicable to England, and we quote somewhat extensively. Referring to the charge that patients are kept in institutions after recovery, he says that his experience teaches him "that the tendency of the present system is in the direction of too early discharges. It is evident that the efforts so zealously and so theatrically made by the so-called lunatics' friends, point to the exemption of all persons not actually raving or mischievous from the risk of confinement in any authorized places." This constant agitation, he fears, has resulted in "a terrible miscalculation of its consequences. Mr. Wilkes stated before a select committee, that in one year, 1,600 suicides occurred in England alone, and that a majority of these cases might have been preserved by earlier recognition and proper care." * * * "It is rare that the moral of these cases is pointed out either by coroners or the press; the absurd verdict of *temporary* insanity is often returned, when culpable neglect of friends, or the equally culpable indifference of the authorities should alone be blamed." * * * Projects

for boarding out paupers, and for the demolition of licensed houses are crudely put forward; and in the haste for cheap philanthropy, their authors set aside all considerations for the national weal. But insanity, being emphatically an hereditary malady, and having so largely increased under the restrictions now in vogue, what must result if lunatics are further permitted to mingle with the general population?" Continuing in this strain, he says: "Not the diminution of insanity, but the license of the lunatic is inscribed upon the revolutionary banner, and its success is fraught with danger to the State, as much as any other misguided fanaticism." The address is a model of brevity and terseness, and as we have already intimated, possesses a significance not confined alone to England.

(2). The article by Dr. Burman, runs through two numbers, and will be considered as a whole, in our notice of the January number of the *Journal*.

(3). Dr. Beach presents a report of a case of epilepsy associated with catalepsy, in which a tumor was discovered situated just beneath the first and second frontal convolutions of the right hemisphere. The lower part of the tumor—which was as large as a walnut—lays partly in front of and partly above the anterior portion of the right lateral ventricle.

(4). Dr. Clark's case, as reported, is of considerable interest, especially in the study of cerebral localization. We are unable, owing to the unexpected length of this retrospect, to summarize his statements and do justice to the case.

(5). Dr. Fraser's account of Spanish Asylums shows that, in some things, that country is abreast of the times, but that in many others it is sadly in need of progress.

(6). Rev. Mr. Hawkins makes a plea for after care of the convalescent insane, especially the women who have no friends to care for and encourage them while they are seeking positions in the world, after leaving the asylum. There would seem to be a large field in this direction, in England, for such practical philanthropy. This timely aid will undoubtedly save many a patient from a renewed attack. To meet this an association has been formed in England with this purpose. This same want has been experienced in the discharge of convalescents in the asylums of the City of New York, and public attention has been called to it by the medical superintendents of these institutions. The laws of the State of New York have long recognized the propriety and necessity of aiding convalescent patients who may be without friends. The Statute of 1842, organizing the State Asylum at Utica, made the following humane provision, which in the revision and consolidation of the statute, is made applicable to all the State asylums, (Chap. 446, Laws of 1874; Title 3d; Sec. 26):

“No patient shall be discharged without suitable clothing; and if it can not be otherwise obtained, the steward shall, upon the order of two managers, furnish it; also money, not exceeding twenty dollars, to defray his necessary expenses until he reaches his friends, or can find a chance to earn his subsistence.”

(7). Dr. Clouston's article has been published at length in the report of the Massachusetts State Board of Charities, and is familiar to most of our readers.

(12). Under notes and news is included a report of the thirty-fourth annual meeting of the Medico-Psychological Association, held July 30, and of the quarterly meeting held on the 18th of June, 1879. At the last meeting the editor-in-chief of this JOURNAL had the pleasure of being present, and by invitation of partici-

pating in the discussion. It was a gratification to meet with so many of the members of that body, distinguished both at home and abroad by their labors in the profession, and to receive the most cordial invitation to attend the annual meeting of the association. This is one of the pleasantest memories of the season's tour, and he has but to regret the inability to respond to the invitation to attend the annual meeting, where it would have been possible to meet a larger number of our English confrères. We take this opportunity to record the hope that in the future we may have the pleasure of welcoming many of them to our shores that they may personally see our institutions, where we may be able not only to return some of the warm hospitalities which they themselves so generously dispense, but where we may show them how we, as kindred Anglo-Saxons, cousins at least, endeavor to follow their best experience, and improve on them where we can. Those who come can best judge where we are behind them, where equal, and where, possibly, in advance. Blood is said to be thicker than water; the ten days dividing strip of ocean ought not to make us differ much in either our methods of work or thought beyond the accidental conditions of social life, national customs and laws.

The question of the abolition of private lunatic asylums, and some of the points involved, which was discussed at the annual meeting, is noticed elsewhere, in connection with another article.

The Journal of Mental Science, January, 1880.

- (1). On the Relation between Syphilis and General Paralysis: Achille Foville, M. D. (2). On the Separate Care and Special Medical Treatment of Acute and Curable Cases in Asylums: J. Wilkie Burman, M. D. (3). Three Australian Asylums: A. R. Urquhart, M. D. (4). Diffused Cerebral Sclerosis: T. W. McDowall, M. D. (5). Intemperance in Study: D. Hack Tuke, F. R. C. P. (6). Clinical Notes and Cases. (7). Occasional Notes of the Quarter. (8). Reviews. (9). Psychological Retrospect. (10). Notes and News.

(1). Dr. Foville's article commences with the assertion that he considered the differential diagnosis of general paralysis "settled," when, in an article on the subject, in the *Nouveau Dictionnaire de Médecine et de Chirurgie Practiques*, he said: "Multiple tumors of the brain, especially those of a syphilitic character, may be accompanied by motor and mental symptoms identical with those of general paralysis. More than once we have observed cases of this kind, and we believe that some do occur in which the differential diagnosis is impossible, except, perhaps, by means of the history. The autopsy alone discloses the error which has existed during the whole duration of the affection."

The language employed in the foregoing is somewhat unfortunate, for the author does not say definitely how he considered the question of differential diagnosis "settled." Subsequently, however, he says that it appears proven from a case cited, and the accompanying remarks, "that, in certain cases, the diagnosis between general paralysis and syphilitic tumors of the brain is extremely difficult, if not altogether impossible."

The translator of this article, Dr. T. W. McDowall, supplements it by some remarks of his own, in which he advances certain reasons for concluding that syphilis is largely causative of general paralysis. One of the most striking illustrations cited in support of the assertion is that, among the Quakers, who are known to lead a "Godly, righteous and sober life," general paral-

ysis is extremely rare. At the York Retreat, according to a recent report of the Institution, in eighty-three years, since the Asylum was opened, but *three* cases of general paralysis affecting the Friends have been admitted.

(2). Dr. Burman's article, which is a continuation of one on the same subject in the October number of the *Journal*, he summarizes as follows: "Putting my ideas into small compass, then, I beg to suggest that, in connection with all existing large public lunatic asylums, not built on the pavilion system, it is advisable to have a detached hospital, to subserve the following purposes: 1. The reception and detention on *quarantine* of all fresh cases, and the more careful and systematic observation of all cases in their earlier stages. 2. The special care and more systematic treatment of the acute and curable cases until, at any rate, convalescence should have become established, when they might be placed together in the hospital for infectious and contagious diseases, so long as it should not be required for its own special purpose, or in one of the better wards in the main building, as far as possible separated from the rest, or in some auxiliary building; also for the temporary treatment of certain chronic cases, when the subjects of an acute accession, or requiring artificial feeding, etc., * * * and for the more careful clinical study of a few selected cases of general paralysis and epilepsy, admitted in a sufficiently early stage of the malady to warrant their separate and special treatment, with a view to rescuing them, if possible, from the category of incurable cases. Dr. Burman says that, in asylums built on the pavilion system, this arrangement would be simplified, and rendered easy of introduction. In contrast to the marked skepticism of Dr. Savage, in regard to the use of remedies acting upon

the nervous system direct, the author advises, in addition to baths, electricity, counter-irritation, and the employment of such remedies as are applicable by means of inhalation as far as possible, the use of atropia, ergot, calabar bean, and other similar preparations.

(3). Dr. Urquhart describes his visit to three Australian asylums, viz: The one at Gladesville, under Dr. Manning, that at Kew, near Melbourne, and the Woogaroo Asylum, near Brisbane. He shows that the caprice of the colonial government has often interfered with the proper management of these institutions, and gives among other the following illustrative instances. To carry out the idea of the colonial under-secretary, that convicts should always have work, the dresses for the female patients were made in prison, thus taking from the asylum a considerable amount of available employment. In another instance, new locks were sent to one of the asylums, each requiring a separate key, the secretary desiring to learn how such a plan would work.

(4). Dr. McDowall presents the history of a case and the result of post-mortem examination in which diffused cerebral sclerosis was diagnosed. The paper is illustrated by lithographic plates. The microscopic bodies described by Batty Tuke, and referred to by Dr. McDowall as miliary sclerosis of the brain are not, according to the pathological investigations instituted in this Institution, in all cases of the same nature, although of very similar appearance. They sometimes give the reaction of amyloid bodies; at other times they consist of a colloid substance; at other, apparently of an albuminoid of still other composition or character. We do not believe that they are, in all cases, formed before death, or that in all cases they represent post-mortem changes, but that their presence indicates the pre-exist-

ence of morbid conditions in the brain, and an evidence of altered albuminous substances which must have existed during life.

(5). Dr. Hack Tuke has written a strong protest under the title of Intemperance in Study, against the forcing system in vogue in many of our schools and colleges. He says that the result of this intemperance in study has, under his observation, "taken the form of brain-fag, mental excitement, depression of spirits, (sometimes suicide), epilepsy and chorea." After describing, somewhat in detail, the system of education in England, and referring, incidentally, to that of the United States, as described by Dr. Fayette Taylor, of New York, Dr. Tuke concludes in the language of Prof. Humphrey, saying: "With Democritus, 'we should strive, not after fullness of knowledge, but fullness of understanding;' that is, that we should strive for good, clear, solid, intelligent, procurable and available knowledge, of the kind that will be useful in after life."

(6). The department of clinical notes and cases contains the continuation of an article by Dr. Mickle, on Syphilis and Mental Alienation, and an article on Myxædema, with autotype illustrations. A translation of a case of Hysteria with Paralysis, treated by Metallotherapy, also appears in this department.

(7). The case of Nowell vs. Williams is reviewed under the head of occasional notes of the quarter, and in the department of notes and news, the judge's charge is given. The plaintiff in this case, "sought to recover damages for false imprisonment, on the ground that he had been confined in the Northumberland House, he being, at the time, sane." The jury found for the defendant.

(10). Under Notes and News, aside from the charge of the judge, above referred to, we notice, among other

matter, an account of a fire at Lenzie Asylum, which, although threatening, was not specially disastrous. The retirement of Dr. W. Lauder Lindsay is also noticed. The editors of the *Journal* have introduced, in the *Index Psychologicus*, an admirable feature. We observe that they acknowledge indebtedness to the *Index Medicus*, so ably conducted by Drs. Billings and Fletcher, of the Surgeon General's office.

This concludes the notice of the latest volume of the *Journal of Mental Science*. In our next number, we shall endeavor to present a retrospect of English psychological literature, as it appears in the *Brain*, *Mind*, *Practitioner* and other British journals.

ENGLISH LUNACY LAW.

Report from the Select Committee of Parliament on Lunacy Law, together with the Proceedings of the Committee, Minutes of Evidence and an Appendix. Ordered printed by the House of Commons, July 30, 1877.

In our last, we summarized to some extent, the contents of this enormous Blue Book of nearly twelve thousand questions and answers; with an intimation that the evidence of Lord Shaftesbury might furnish the materials for an instructive article by itself. We believe it was the intention of this Parliamentary Committee, if continued, to formulate a report embodying the conclusions to which the vast mass of the testimony taken might lead them as to the operation of the Lunacy Laws in regard to possible violations of the liberty of the subject, the sole point embraced in their instructions; but as the investigation practically was found to have branched out into every possible subject relating to insanity and to insane asylums, we hardly wonder that the evidence given was submitted in bulk instead of a report; neither have we learned as yet of any attempt to analyze it and present the conclusions that may be legitimately drawn from the testimony.

It is, however, a very valuable and fruitful source of information to those who are making this specialty their study, embracing, as it does, a great many observations of sterling worth drawn from their own experience and uttered before an able Parliamentary Committee, by such men as Drs. Tuke, Bucknill, Robertson, Maudsley, Balfour, Crichton Browne, Nugent, Winslow, Blandford, Mr. C. S. Percival, Sir Jas. Coxe, the Earl of Shaftesbury and many others. And we feel that though it might be a bootless task to tabulate

and endeavor to harmonize all this testimony according to the respective subjects, yet it is not necessary to leave all its useful matter buried out of sight in these cumbrous and generally inaccessible pages.

The venerable Lord Shaftesbury is well known as one of the most eminent and influential of England's Christian and humanitarian statesmen, and for fifty years he has been specially conversant with the department of insanity, and with the laws and institutions for the care of the insane. He was on the first Commission of Inquiry in 1828, which resulted in bringing the first bill into Parliament from which the present Lunacy Laws have developed. Since the permanent appointment of the Lunacy Commissioners in 1845 he has held the office of permanent chairman, and for twenty years he was one of the constant visitors of the insane asylums, and still frequently exercises that function.

In regard to the chief point of inquiry before the Committee, *i. e.*, whether there is too great facility of admission to asylums at the present day, Lord Shaftesbury answers emphatically in the negative; he can not recollect a single instance of a patient being brought in whose case there were not good grounds for placing him under care; although, of course, even discharged lunatics hardly ever get over the idea that they were unjustly confined; moreover, he believes that lunatics are as a rule, discharged quite as soon as they ought to be, if indeed, the tendency is not rather to turn them out into the world before they are really recovered.

As to "conspiracies" to confine and detain patients, although he believes "that when temptation gets hold of a man's heart, he is capable of doing anything," yet "he is happy to say, that Providence throws so many

difficulties in the way of a conspiracy, that in 99 cases out of a 100 it is altogether impossible." Indeed, it is often one of the first signs of aberration in a patient, this belief in a *conspiracy*. In reference to this whole question of making it more difficult by law to consign a person to a lunatic asylum, the noble Earl pointed out some very curious facts. Mr. Wilkes, a previous witness, had stated, (*Q.* No. 748), that besides a large number of murders committed by people that were doubtless insane, in the year 1875, there were no less than 1,600 cases of suicide in England, most of which he thought were cases of insanity, or cases which would not have happened had the persons been under proper care in some asylum. Lord Shaftesbury contrasted with this statement the fact that although the whole number of suicidal patients in asylums in 1876 was 6,096, yet the whole number of suicides committed among them was but twenty-one, showing at least how many are successfully restrained from taking their lives. Many of these suicidal patients are also homicidal, showing the still greater necessity for their confinement. The following is the remarkable statement submitted by Lord Shaftesbury on this subject drawn from an analysis of the statistics of Broadmoor Criminal Lunatic Asylum, containing in 1876, 428 men and 118 women:

Q. What inference does your Lordship draw from these statistics? *A.* On going into the history of many of these cases, we see a very fearful picture indeed. No doubt, of the criminal lunatics shut up in Broadmoor there are a great number of comparatively trifling cases, larceny, and so on. I confine myself to those guilty of the greater crimes. This is a paper drawn up at my request by Dr. Orange, of Broadmoor, a very few months later than the table which I have just read. On the 20th March, in 1877, there were 240 men and 87 women, in all 327, charged with murder, attempts to murder, and manslaughter. Of those, 145

men are charged with murder, 98 with attempts at murder, 7 with manslaughter; 71 women were charged with murder, 12 with attempts at murder, 4 with manslaughter. Now this is the history of the cases, and very remarkable it is. There are 145 men charged with murder. In 75 cases the insanity was not recognized before the commission of the crime; in 29 the insanity was recognized, but the persons were reputed harmless; in 33 the insanity was recognized, and the persons probably not regarded as being altogether harmless, but insufficient precautions were taken; in 8 the exact circumstances were not known. Then you come to those who are charged with attempts at murder, maiming or stabbing; in 42 the disease was not recognized before the commission of the crime; in 29 they were reputed harmless; of 12 insufficient care was taken, and in 15 the exact circumstances were not known. When you come to the women, there are 71 women charged with murder; in 28 the insanity was not recognized before the commission of the crime; in 13 the insanity was recognized, but the persons were reputed harmless; in 23 the insanity was recognized, and the persons probably not regarded as being altogether harmless, but insufficient precautions were taken. Then you come to the stabbing. In 4 the insanity was not recognized; in 6 they were reputed harmless; in 2 sufficient precaution was not taken. Now this is a very important matter, because it shows the very large number of cases in which, through inattention, the insanity is not detected until the overt act has been committed. That is the evil way in which a large proportion the public judge of sanity or insanity. They will never hold a person to be insane till some overt act has been committed, and that is always invariably the case before juries. Then the overt act having been committed, furnishes a proof that the disorder is very far advanced; almost to be inveterate, and consequently incurable. What I state shows the absolute necessity of great precautions; the absolute necessity of paying attention to the earliest stage of the disorder, and though I could by no means render admission into the asylums more easy than it is, I most undoubtedly would not render it more difficult, because I am certain society is in very great danger. We always have felt as Commissioners that we have a double duty. We have a duty to the patient and we have a duty to society. We have a duty to the patient to see that he is not needlessly and improperly shut up, but we have also a duty to society to see (if we can) that persons who ought to be under care and treatment should be under care and treatment, and moreover that they

should not be set at large before they can be considered safe to mix in society.

Q. Do not those facts which are very remarkable point rather at a want of knowledge of lunacy among medical men? *A.* No, I think not; I am not going to say that there is a sufficient knowledge of lunacy among medical men, but such cases as these have never been brought under their observation. They have been suffered to roam about; nobody has taken any trouble about them. In the case of many of them the families did not suspect the madness. They might have thought the man was queer, and they never thought of consulting a doctor on the matter; I have no doubt a great number of medical men, if they had seen this case at an early period, would have come to a right conclusion upon it. As I was saying, the large mass of society, even educated persons, are wholly unable to form an opinion unless they see something that is very decided, that they consider aberration; something very peculiar; something out of the common way. Another is this: it very often happens a great change of character is very often the indication of coming insanity; and then many people say, and very naturally, "What is the matter with this person; he is getting very cross; he is quite a changed man; he is not half as good-humored as he used to be; he has become crabbed and ill-tempered." They do not see that it very often is an indication of his approaching insanity; they put it down to a sudden change of temper.

Q. Has your Lordship any suggestion to make upon that point? *A.* No, I have no suggestion to make upon that point, because I am very unwilling to say anything that should restrict in the least degree more than it is now restricted, the liberty of the subject. I only wish to call greater attention to these things that people may have their eyes open, and then they may put their heads together and see if they can devise something by which a remedy may be applied, but I have no particular suggestion of my own to make. I only give it as a very striking fact, and one that should put us on our guard very much against juries, because they never will deal with the matter unless there is an overt act, which overt act in 99 cases out of 100 is a proof that the disorder is incurable.

Q. It amounts to this, that generally the friends of people who are eccentric ought to watch them more carefully than they do? *A.* The friends of people who are eccentric ought to watch them more carefully than they do.

Of course, there is no eligible mode of reaching this matter by legislation. Lord Shaftesbury himself scouts the idea of "special doctors" distributed throughout the country, who "would so completely surrender everything to science, that they would almost take leave of common sense," and "shut up people by the score."

Q. Therefore you would point to a time at which medical men should be sufficiently skilled to enable them at once to send initiatory cases to asylums? A. Yes, but then you see those men have not yet been trained. I suggested, in the year 1859, that a great deal should be done in that way; that all medical men having lunatic asylums should invite young men to come and spend a few months or weeks, and so acquire a general knowledge of it. I think something has been said about having what they call a system of special doctors. I confess to you that I have a very great fear of a special doctor. But, assuming them to be good, in the first place, they must be very numerously spread over the whole country of England and Wales, because they are wanted at the instant, and were there not an ample supply of them you would have to send to very great distances to reach these special doctors. I should like to see how the Act of Parliament would define a special doctor, before I can give an opinion. I confess I should be very much alarmed if there were persons who kept themselves exclusively to that study, without a constant experience of both, of all the various circumstances that beset lunacy at large and under confinement, moral as well as physical, that attend it; all the social circumstances, and the ten thousand other circumstances; how many eccentricities are exhibited by men who are not mad, and who never will be mad, and yet under the minute refinements and discriminations of science, would be put down as being in the way to become mad. I confess I should be very much alarmed if special doctors of that kind should be instituted. You can not have better opinions in the present day than those of such men as Dr. Bucknill, Dr. Maudsley and Dr. Blandford, but erect them into special doctors, and I should be afraid of them altogether; they would so completely surrender everything to science that they would almost take leave of common sense. There is no doubt that, if you probe every human mind and every human heart, and test them by the severest formulas of science,

you will find such moral curiosities, that anybody might very safely affirm, upon scientific grounds, that this or that person has a tendency to go out of his mind; it amounts almost to a superstition. I remember the case very well of a medical man, a doctor; an excellent man, who thought that I had some influence in obtaining the appointment of medical men to the Commission. I knew him very well. He came to me and told me what he wished. To show his extraordinary knowledge of the subject, he gave me a sheet of paper as big as that, with a list of the forms of insanity; I counted them up, and they were forty in number. "My dear sir," I said, "this will never do; if you reduce your principles to practice you will shut up nine-tenths of the people of England." And so they would. You may depend upon this; if ever you have special doctors they will shut up people by the score.

The only practical course, it seems to him, is to increase the knowledge and interest of general practitioners in this department, by means of the medical institutions, and medical men having asylums, imparting their special knowledge to the profession generally. It is a somewhat curious reason that he gives for the fact that out of the 185,000 medical certificates of insanity that have passed through the office of the Lunacy Commissioners since 1859, "not as many as *half-a-dozen* have been found defective," (*in substance*).

Of course we must admit that they are signed by medical men, who have no very extensive knowledge of lunacy, but it is certainly very remarkable that the number of certificates which have passed through our office since 1859, the date of the last committee, amounts to more than 185,000, and yet of all those certificates I do not think so many as half-a-dozen have been found defective. It sounds very well to say that persons acquainted with lunacy should be the only persons to sign certificates, but the fact is, as matters now stand, that a great amount of scientific knowledge as to lunacy is not possessed by many people; there are a certain number who are well-informed, but the great mass of the community know very little about it, and with the large numbers of the insane dispersed, as they are, all over the country, you must trust to the medical men of the several districts. I have a very strong opinion on this point; the certificates hitherto have been

very correct, and I am quite certain that out of the 185,000 there was not one who was not shut up upon good fair *prima facie* evidence that he ought to be under care and treatment. Such is the testimony of all the physicians of note who have been examined before this Committee; for what does that arise from? It does not arise from the great knowledge of the medical men of the lunacy that they handle, but it arises in great measure from the habit of keeping back the patients so long, because the parents and friends do not like to admit to themselves that the patient is affected, and so delay to call in a medical man. And then begins, when the medical man is at last called in, the fear and the apprehension that the patient may be sent to a lunatic asylum, and the whole affair become public; so that when the final examination is made by the medical man who has to sign the certificate to send them to an asylum, the symptoms are so evident, and so pronounced, that few people can mistake them. I have very little doubt that such is the case, and that such is the reason why we have so few faulty certificates; but, on the other hand, what follows from that course? Why, that the cases are very far advanced, and have got pretty nearly into the category of the incurable.

There is a good deal of truth in this. Perhaps if the Chinese ethics prevailed here, and physicians were paid for *prevention*, not for *cure*, there might be closer attention to the pathological liabilities of people, and less of the interposition that always comes "too late;" as it must be confessed, is too frequently the case with the consignment of a patient to the asylum, determined upon after infinite reluctance and delay. And yet we find, even in this actual state of things, in which it is next to impossible to apply remedies just when and where they are most needed, when and where in fact, they can alone promise success, almost the whole community morbidly sensitive upon the question of pronouncing a person insane, and sequestering him solely for the purposes of restoration!

As to the matters of correspondence and visits to patients, Lord Shaftesbury corrected the impressions of

some previous witnesses by saying that these things were not controlled by the person committing the patient, but were left to the discretion of the superintendent. In case of appeal to the commissioners, of course attention would be given to all the circumstances and the claims of the different parties. As this subject of correspondence is somewhat of a vexed question, it may perhaps be as well to exhibit in his own words the conclusions to which such a veteran as Lord Shaftesbury has arrived:

Q. One of the great complaints of paupers in asylums is, that their letters are not forwarded, and that they seem to be shut out from the outside world and unable to communicate. No doubt the law and practice is that the superintendent has very considerable power over the correspondence, and it has been suggested that the power should be taken away, and that either there should be unrestricted communication by letter with the outside world, or that a clerk should be employed in your Lordship's office to sort them, and to send forward those that were considered fit. Has your Lordship formed any opinion upon that point? A. Yes; I am inclined to think that the correspondence is very fairly carried on; that letters that ought to be sent are really sent by the great mass of superintendents. I can not have a doubt that it is so; all letters that are not sent are reserved for the Visitors or the Commissioners at their next visit. On inquiring, the other day, I found there were very few instances indeed in which the Commissioners or the Visitors, upon opening those letters, think they ought not to have been kept back. No doubt the superintendent of the asylum has a very great power, and he might keep back a great number of the letters that ought to be forwarded. I do not think they do it, and I do not think they are inclined to do it; the responsibility is very serious. I do not think they keep back any correspondence but that which they think would be positively hurtful; and such must of course be detained. Some of it is of the most blasphemous and obscene character. They are very fond of addressing such letters to women and young ladies. Only about 10 days ago, on visiting one of the licensed houses of London, I saw a young gentleman of 26 or 27, of great talent and good position in society, who is under the awful impression that his mother has made unnatural advances to him, and he is always writing to her and to.

his sisters on the subject. The proprietor of that asylum, knowing his propensities, and knowing what his correspondence is, invariably sends all the letters, but he sends them to the father. Now, there might be a case in which there might be no father at all, and no male friend to whom they could be sent. I can not conceive anything more awfully distressing than that letters of that kind should be sent to young women and girls. There are some of them who have a positive frenzy for writing. I have a correspondent in Sussex House who favors me periodically with some of the longest letters I ever saw. They are invariably sent to me, and I do myself the honor, I can not say the pleasure, of reading them. The man boasted to me the other day that he had written no less than 120 letters within the last month. You can hardly think that all those could be forwarded.

Q. In Massachusetts a locked box is placed in each ward, in which letters are deposited, and they are sent to a public body, called the Board of State Charities, and somebody there opens those letters, and distributes those which are fit to be distributed. That corresponds much to a proposal that was made that all letters which were not forwarded at once to the relations should be sent to the Commissioners, and that a clerk in the Commissioners' office should undertake that duty? A. I have no doubt that the superintendents of the asylums would like that very much indeed; it would save them a world of responsibility, but I have no disposition whatever to relieve them from responsibility. The more responsibility they have upon their shoulders the better. See how that would answer. I do not think it would be successful at all. A great number of letters ought to go direct, and ought not to be delayed. They would come round to us, and so time would be lost, and they would be opened, because we should have to act judicially upon every letter. We should have to see those letters, and thus a great number of family secrets, little communications between husband and wife, would come out to us. Some of the tenderest letters go on between the patients and their friends. All that would be read, frequently at the board, and always by the clerks, which would be very disagreeable to the unhappy writers of the poor people, because they would not like their friendly expressions and their little griefs to be revealed to many strangers. Then, again, we should be in this difficulty; it is very easy for us to decide what letters are unfit to go, blasphemous and obscene letters; but there are a great number upon which we can really (I mean compared with the medical man on the spot, who observes

the state of mind in which the patient is at the moment of writing) form no judgment, and yet we should be compelled to give a judgment upon them. Many of them relate to family matters, which might cause, if written under high excitement, a great deal of trouble; we can not determine whether such a letter is fit to go or not. Then, again, many of these poor people who send letters to their friends are cured in a very short time. They go out, and then they feel they have standing against them a record that a number of their letters, written in a moment of excitement, have been read at a public office, and all their little histories are known, when perhaps it would otherwise be confined to their friends. I I would go to any extent, by way of legislation, to secure the due communication of the letters to those persons to whom they are addressed, but I at present conscientiously believe, after thinking it over as much as I possibly can, and from conversation with my colleagues, that we can not, at present, improve the existing system.

Lord Shaftesbury also expressed a strong opinion against too large establishments, though he had no doubt that as many as 2,000 chronic cases could be safely cared for under one management if there is a proper medical staff. It is fear of the rate-payers, however, that is tending to make even the asylums for acute cases too large.

Lord Shaftesbury admits that it is desirable to have all the insane under public care; yet he thinks it would not be possible or just to abolish licensed houses, but that if public hospitals were the basis of the system, many of the small licensed houses would be extinguished, and none would remain but those of the highest order. He cites that in Scotland there are scarcely any private asylums. As to the matter of visitation, it is significant that he favors more of what might be called *local* visitation, that is, not only by the visitors of the Lunacy Commission, but also by a "House Committee," or local board, who "have very great advantages, because they know the character of

every patient, and the character of the superintendent, and *can judge far better than any strangers can.*" We call special attention to these words, of a man than whom none can claim to be more familiar with the whole lunacy system of England, as containing a key to the whole management and direction of institutions for the insane. One of the previous witnesses (Hon. F. Scott, 8,691), had spoken of the "confusion of authorities" caused by having so many "Boards" to look after the insane, there being as many as six different bodies, the Asylum Visitors (in each county), the Court of Quarter Sessions, the Board of Guardians, the Home Office, the Local Government Board, and the Lunacy Commissioners, six of whom are paid for visiting county asylums and licensed houses, besides three Lord Chancellor's Visitors for visiting about 1,000 chancery patients, a good many of whom are in the asylums and licensed houses. Pauper patients in work houses and private dwellings do not appear to be visited at all. Of course, one can hardly turn in any direction in England without encountering what is called a "vested interest," and this it is makes it so difficult to codify the laws, or reduce any set of institutions to one general or uniform plan. A far greater distinction of classes exists in England than in this country, and it is not possible to overcome public opinion which carries this distinction more or less into the provision made for the insane. But Lord Shaftesbury does not take kindly to the suggestion to increase the number of members in the general Board of Lunacy Commissioners. He does not object to increasing visitation. On the contrary he says, "I would increase the visitation of county asylums by the visitor resident in the neighborhood, and increase the visitation of licensed houses in the county by an additional visit of the Medical Visitor." (Q.

11,360.) But his answer as to increasing the number of Lunacy Commissioners is so suggestive, and furnishes so pregnant a hint to some among ourselves, who would throw the management of all the institutions in the State into the hands of one large unwieldy Central Board, that we give it in full:

We are now six paid Commissioners, and there is the chairman, who makes seven, and if we have any honorary Commissioners we amount to eight or nine. If we increase them we should get to eleven; we should then be approximating to a Parliament, and you all know what can be done in Parliament. We should get into debates, and making motions and divisions, and ten thousand things of that sort. The present Commission has grown up in a very remarkable way; it has grown up by small steps, the members being added one by one, and we have fallen into each other's habits. The result is that in nearly fifty years I can only remember one division, so much have we harmonized together. Nevertheless, when the Commission was much larger, before it was reduced in 1845, we sometimes met seventeen and eighteen together, and I have sat in the chair talking and debating and making motions, not in dividing, for we always avoided that, till sometimes six and seven o'clock at night. I have had to sit in the chair listening to all that talk, and I am afraid we should get into much the same sort of thing. We go on harmoniously now, because we perfectly understand each other.

As to visiting, he had encouraged visitation by friends and relatives of lunatics, and he regretted very much that a clause in the Act of 9 Geo. IV, had been dropped out in 1845, requiring the person who signs the order to visit the patient, in person or by deputy, at least once in six months. Lord Shaftesbury is not tired of reiterating his opposition to any one large Central Board assuming the whole care and supervision of so vast and complicated a system of interests, where a mistake in any particular is not confined to one neighborhood, but makes its disastrous effects felt universally, and where it would be impossible to bring

responsibility home to the places where it belongs. We give another of his answers bearing upon this point:

Q. Do you think it is a good thing with regard to one subject-matter, as to lunacy, to have so many distinct superintending bodies? A. I think it has gone on very well indeed; I think this division of responsibility makes the responsibility more weighty upon the shoulders where it descends. I think concentration has this effect, that it creates a large responsibility in one or two persons, which leaves a very great number very much at liberty. I like to multiply responsibility in every respect. I do not like a system where A can throw it upon B, and B upon A. I like A to bear his own responsibility, and B his.

The remainder of his lordship's evidence is principally an elaboration of minor points already gone over in the previous pages. It seems apparent enough that the best minds in England are really desirous of simplifying their system according to the dictates of experience, so far as vested interests will allow. This has been given to American legislators to do without any similar obstructions. Local Boards of Managers immediately connected with each institution are found to secure the most efficient administration.

Dr. Bucknill, in an address on Private Lunatic Asylums, in January, 1880, in London, and published in the *British Medical Journal*, February 7, discusses the question of their abolition and changes in the Lunacy Law. He concludes as follows:

"In the first place, I may broadly state my opinion that no change of the law can be satisfactory, which does not contemplate the eventual abolition of all private lunatic asylums. The deprivation of the personal liberty of any of the Queen's subjects is an affair of the State, and must only be undertaken by the State. From that axiom there must be no flinching. Such asylums as I have last described, may survive under some other name, as voluntary retreats for persons of defective or damaged mind. For lunatics who must be confined against their will, asylums ought to

be provided by the State, and managed by boards of governors. Moreover, the care and treatment of quiet and harmless cases of insanity by the open medical profession in domestic life, as single, or double, or treble cases, ought to be encouraged by the law and its administrators, and not discouraged, as it is at present. It may be very convenient to Commissioners, that the insane should be gathered together in large herds or groups; but it is not to the advantage of anyone else except the custodians; and the Commissioners must eventually conform to the requirements of the age, and prepare to inspect the treatment of the insane wherever it is most convenient for the insane to be treated. And the idea of making everything smooth and easy for official visitation, which reached its climax in a proposal that for the convenience of the Commissioners, every asylum should be close to a railway station, must be replaced by wider views of official duty.

The discussion of the large question of certification may well be postponed to another opportunity; only I may observe that I think that no tinkering of the present certificate system will suffice to make it safe to the practitioner or satisfactory to the public. The medical man ought to be put firmly upon his right footing, as the exponent of scientific opinion; and the action taken upon evidence of that opinion, in so grave a matter as that of depriving a man of his liberty, ought to be no less than that of the civil power, whatever may be determined for the best, as to the judge, or the court, or to the form of inquiry.

Moreover, great changes are needful in the administrators of the lunacy laws. The Commissioners in Lunacy are administrators in the metropolitan district, and inspectors only in the remainder of England and Wales; and it is very certain that the worst asylums to be found in the country are under their immediate jurisdiction. If their Board is to survive a thorough reform of the lunacy laws, they ought, at least, to resign the control of the metropolitan asylums, and to install the justices of the peace of the counties of Middlesex, Surrey, Kent and Essex, in the same authority which the justices of the peace possess in all other counties, the Commissioners themselves exercising everywhere, an uniform power of inspection, report and superintendence. But a more extensive change is still more needful and important, which would render needless this local and partial change. There are, socially and logically, but two classes of lunatics in the community, those who are destitute, and those who are not; and there ought, accordingly, to be only two authorities to administer the lunacy laws, and two laws for

them to administer, as they severally regard these two distinct classes of the insane. The present division of authority between the Lord Chancellor's Officers in Lunacy, the Commissioners in Lunacy, the Local Government Board and the Boards of Guardians, the Visiting Justices and Visitors of Asylums, the Boards of Clevedon and Caterham, etc., is intricate, confused and mischievous. Instead of this, the Local Government Board, or the Minister of Health, when he is appointed, ought to be placed in authority over all subordinate authorities having control over the care and maintenance of all destitute lunatics; and the Lord Chancellor's Officers in Lunacy, or to speak with more technical accuracy, the Lord Chancellor with all his subordinate officers in lunacy, under the Royal Prerogative, ought to have authority over all other lunatics and persons charged with their care and control. This change would leave no sphere of action for the present Board of Commissioners in Lunacy, the members of which might well be distributed between the two new and enlarged authorities, half of them going to the Local Government Board, and half of them to the Lord Chancellor. Upon this broad basis, the details of lunacy law reform could be built up with symmetry, science and effect; but, without some broad basis of this kind, founded upon a logical principle, any reform of the lunacy laws which we may expect will be but some tinkering of the old pot, where the light of day most inconveniently shines through its rust-eaten sides. Be assured, however, that the longer reform is delayed, the more comprehensive it will be when it does come; for the history of social politics is the opposite of that of the Sibylline leaves, and generally, the longer you wait for it, the larger it becomes. In the meanwhile, be it our duty, both collectively and individually, to strive that this most pitiable and helpless class of diseased persons, from whom the profits of private lunatic asylums are derived, shall not suffer longer than we can help, under the disadvantages of this worn-out old law. Sequestered as they have been from our professional care, they are still, as diseased persons, the proper objects of our interest and regard; and we owe it to them, not less than to ourselves and our profession, to strive that the law which governs their care and treatment, shall be conceived and executed in the spirit of benevolence, of the scientific knowledge of disease, and of the true relations which the ethics of our profession teach as being consistent with the true dignity and welfare of both medical practitioner and patient."

BONFIGLI ON MORAL INSANITY.

TRANSLATED BY J. WORKMAN, M. D.

In the October number of this JOURNAL, we published a few extracts from the able article of Dr. Bonfigli, of Ferrara, on Moral Insanity, (*Pazzia Morale*), translated from the "*Revista Sperimentale di Freniatria e di Medicina Legale*." The last number of this very able periodical gives the conclusion of this article, which is characterized by the same acute argument as the preceding part, but its entire reproduction would require more space than our pages warrant us to devote to the subject. We therefore must request our readers to be content with Dr. Bonfigli's final chapter, in which he presents a "*Summary Review of the Literature of the so-called Moral Insanity*," in the following terms:

"Having now reached the close of our undertaking, it may not be out of place to take into brief review the question which has so far occupied us. This appears to me the more necessary, since, according to the distinguished *Tomassa*, it would appear that from the time of Pinel down to this present, the idea of the admission, as a distinct phrenopathic form of insanity without delirium or moral insanity, had made continuous progress, and that to-day, only myself, supported by *Palmerieri*, am to be found its opponent; whilst, on the contrary, it is my belief that the idea of moral insanity as a distinct phrenopathic form, originated by *Pinel*, *Grohman* and *Prichard*, has continually been losing ground, and has been in great part transformed, and would have been abandoned *in toto* but that there has not been sufficient courage to renounce the traditions of the school of metaphysical psychiatry, or that it has been believed by some that it might be useful in legal medicine, to signalize by a name the existence of a mental state, in which persons may reason correctly, and at the same time be most dangerous lunatics.

In the following lines, I shall briefly adduce, in proof of my assertion, the opinions of authors who have been occupied in our

study, quoting where it may be necessary, their own words; if any void be found in this rapid survey, which I shall leave without comments to the appreciation of my colleagues, the fault must not be ascribed to me, since I have sought to discover all that has been said for and against this doctrine, in the books and journals coming within my reach.

Pinel was the first, who, in opposition to the psychological idea of *Locke*, admitted the existence of a form of insanity without lesion of the intelligence.

Hoffbauer, a partisan of the transcendental idealism of *Schelling*, and author of a work on diseases of the soul! (anima), followed the opinion of *Pinel*, sharing in sentiment with another Schellingite—*Reil*.

Heinroth, a spiritualist of the school of *Stahl*, who believed that the soul (anima) might become diseased *per se*, maintained further, that one faculty of the soul might be diseased without the others at all suffering.

Grohman, a disciple of the phrenology of *Gall*, first treated of a moral disorganization independent of that of the intellect.

Esquirol, *Georget*, and other pupils of *Pinel*, accepted the doctrines of their master.

Henke opposed himself earnestly to the idea of an insanity without delirium, and declared it a psychical impossibility.

Prichard united in one group, those mental states, which, according to him, were characterized by a morbid change of the natural sentiments, affections, tendencies of temperament, moral habits and natural instincts, without noticeable disorder or defect in the faculty of thought, knowledge or judgment, and above all, without hallucinations or illusions. To the malady corresponding to this picture, he gave the name of *moral insanity*.

Nasse, although one of the founders of the somatic school, under dominion of the dominant philosophico-mystic idea, held that if the brain was the organ of the intellect, the thoracic nervous plexuses might be that of the sentiments, and those of the abdomen, of the will. He therefore admitted the moral insanity of *Prichard*, noting however, on the other hand, that in the affected persons there was always present, a certain weakness of intellect.

Zeller, though accepting moral insanity, recognized also the existence of the same intellectual weakness, or a slight imbecility—(*milder Blodsinn*).

Morel, in his work on degenerations, defines this condition as a deviation from the primitive or normal type of humanity, and he

says that such a degeneration does not constitute a distinct phrenopathic state; by him all mental diseases are placed in the great class of degenerations, in all which moral perversion may be met with. It therefore appears that he is poorly supported, who believes that Morel, in his treatise on degenerations, supports the doctrine of moral insanity as a distinct form; he admits that in the degenerate, and therefore, in all the insane, the moral sense is observed to be perverted; but this is admitted also by ourselves, who merely deny that the perversion of the moral sense can constitute a distinct character, pathognomonic of a given morbid form, or a given anatomical condition. In his treatise on mental diseases, where he may seem to accept the form moral insanity as established by Prichard, he does so simply for the purpose of exhibiting together monomanias, manias, &c., in his second class of hereditary insanity. But when he describes the individuals whom others call moral lunatics, and who are, in his view, only hereditary fools of his second class, he says their intellectual integrity is only apparent, and notwithstanding certain brilliant manifestations, they are struck with an "*intellectual sterility*," and he further adds: "I have noted, it is true, in many nervous patients of this sort, singular intellectual aptitudes, a facile elocution, great fecundity of writing, and sometimes even a disposition towards the arts and sciences; but if we have the courage to scrutinize their literary, scientific or artistic productions, we soon discover that their mental fecundity is surpassed by their erroneous notions, their trivial solidity of judgment and their continual proclivity to paradox."

Nor does this suffice; for, a little further on, Morel records an observation in which the disease spoken of might be the type of those sorts of insanity to which Pinel gave the name, *reasoning mania*, and the English author, Prichard, that of *moral insanity*. Speaking of the intelligence of the person observed, he says: "A volume would not suffice for enumeration of the errors and aberrations of his ideas, the confusion of his recollections, the absurdities of his scientific notions, and the truly morbid absurdity of his judgments." He was then treating of an unfortunate one, probably affected by mania of hereditary origin. As regards the rest, Morel is so far from regarding moral mania as a distinct phrenopathic form, that he says the same may be met with in all the classes of hereditary insanity; and these classes, as it may be, comprehend neuropathics, monomaniacs, mahiacs, &c., down to the feeble-minded, the imbecile, and the idiotic; which, in con-

formity with our ideas, is equivalent to saying that perversion of the moral sense is not characteristic of a special form of insanity, and that it may therefore serve as a reliable countersign of a special abnormal state, but that, on the contrary, it may be met with in all forms of insanity, just as in imbecility and idiotism. This Morel expressed even more clearly afterwards, when in the Medico-Psychological Society, of Paris, the subject of a reasoning insanity was discussed at length. On that occasion, after having learnedly set forth certain general principles, he uttered the following words:

"These principles, being once accepted, it will readily be conceded to me, that it is not necessary to attach to the term insanity of acts, the idea of a mental condition in which the intelligence may not be at all compromised, or, in fine, of a condition in which no other fact is to be registered besides the wicked perversity of moral acts, without concomitance of disordered ideas, which would, in fact, be still to class such affected persons in that variety of madness, which has been designated under the name *folie morale*, or moral insanity of the English. Whenever the perversity of actions exists, without pathological conditions of the nervous system, without intellectual disorder, which is the index of a suffering condition of the organism, *there we have crime, and not insanity*; and crime so extraordinary that it calls for incrimination."

Trelat, the author of the celebrated treatise on lucid insanity, which many have regarded as equivalent to the so-called moral insanity, is not understood as making of this insanity a distinct form of mental alienation, but only as studying that apparent lucidity which may be met with in all forms of the disease. He follows the old classification of Esquirol, and says lucid lunatics may belong to different categories of insanity.

Trelat seems to have directed attention chiefly to imbeciles, and those of feeble intellect—that is to say, to that category of phrenoathenics, in which we would have recorded all those cases of the so-called moral insanity, which could not be classed under the other ordinary forms of insanity. In fact, he places these unfortunates in the first rank of his lucid fools, and the description he has given of lucid imbeciles, perfectly corresponds to the classic description of the so-called moral insane. Furthermore, in the second chapter, in which he treats of those affected by satyriasis and nymphomania, he gives us to know that he ascribes to intellectual defect those perversions which are observed in the actions which relate to the idea of moral insanity. Here are his words:

"We place the satyrs and nymphomaniacs immediately after the imbecile and feeble of intellect, because several of them may

be as well classed in the one category as in the other. And, in effect, however impetuous may be the tendencies, the intelligence if it is normal governs and restrains them. When a man abandons himself, unbridled, to his brutal appetites, or a woman, by her lascivious bearing, her attitude and provocative movements, her obscene language and amorous utterances, falls to the level of the animal, it is because the intellect, which ought to reign and govern, neither reigns nor governs."

Marcé does not believe that what is called a reasoning mania, or moral insanity, should be considered as a distinct pathological entity. He says: "All the facts of this nature, which I have collected, may be associated in one category: they are either congenital states, in which are found the traces of infancy, which may *legitimately be united to imbecility*, or they are abnormal states of the *intelligence*, consecutive on antecedent accesses of insanity, and which approximate to maniacal excitation." This amounts to showing that *Marcé* also had taken the same method of regarding moral, or reasoning insanity, which to-day we have endeavored to establish.

From a remarkable discussion on the subject of moral insanity, which took place (1863) in the convention of medical alienists of the United States, and from the analysis of it, made by *Brierre de Boismont*, we select the following notes:

Mac Farland, Superintendent of the Insane Asylum of Illinois, gave a learned discourse, in which he said that moral perversion is met with in various forms of mental alienation, and that the most notable examples of it are met with in puerperal mania. Unfortunately, this mental condition had been baptized moral insanity. He, however, expressed the conviction that in all the cases called moral insanity there existed a *true intellectual disorder*, and that the so-called moral insanity is the result of an overlooked delirious conception, or the passive effect of a debilitation of the power of reason by the base instincts of man.

Nichols, of Washington, spoke of accepting moral insanity, and the possibility of lesions of the moral faculties alone, though he admitted that almost always the intellectual are also disordered; in support of his manner of viewing the subject, he narrated the history of two cases, which he designated true moral insanity. In these two cases, however, *Ranney*, and the report of the *American Journal*, &c., showed that delirious ideas clearly existed; in one the idea of poisoning predominated, and that of being a second St. Paul; in the other there was a notable delirium as to persecution.

Kirkbride, president of the society, and the illustrious *Gray*, said that in cases of the so-called moral insanity there always exists disorder of the intelligence, and the expression, moral insanity, is therefore unjustified.

Ray, on the contrary, recognizing the obscurity in which the question was still involved, said that in practice there really are cases in which there perhaps exist disorders of the intellect, but in such a manner as not to admit of certain affirmation, while, on the other hand, they are distinguished by notable disorder of the moral faculties. He, however, admitted that in these cases intellectual disorder is always presented in sequence, and he said that he believed such cases constitute a period of passage from the one form to the other.

Ranney, of New York, said he joined with those who do not admit that the moral faculties can be divided from the intellectual, and be injured separately. He said: "If a lesion of the moral faculties, independently of the intellectual, were possible, we should no longer possess any criterion by which to distinguish insanity from perversity."

Mac Farland replied by relating, in support of his view, an observation, and concluded in the following words: "Reflecting on this subject, we are authorized to believe that, admitting moral insanity, appearances are taken as results, and (as happens elsewhere) possessing certain types, or certain likenesses of a thing, we become persuaded that we have hold of the thing itself. In the meantime, I say, that if, among 2,000 cases cited by *Workman*, 1,800 by *Chiple*y, 5,000 by *Gray*, not to speak of the large experience of others, *not a single case of true moral insanity has been found, this harmful term should be banished from our language.*"

Parigot defended the existence of moral insanity, but recognized the misfortune of the unhappy term.

Brierre de Boismont closes his review of the preceding discussion, which he qualifies as most important, by affirming, with the additional support of authoritative philosophers and physicians, the solidarity of the mental faculties, and the non-existence of moral insanity as a distinct phrenopathic form.

J. P. Falret, in a dissertation published in 1819, the conclusions of which he also maintained in his notable treatise on mental diseases, combating the existence of an insanity without delirium, showed that, in the cases adduced by *Pinel* and *Foderé*, there was true lesion of the intellectual faculties.

Brierre de Boismont, the most clear of the noteworthy writers on reasoning mania, in the discussion which took place on this subject in the Medico-Psychological Society of Paris, through the initiative of *Jules Falret*, spoke as follows: "Reasoning mania and the delirium of actions do not constitute either a special type or a new variety of mental alienation; experience, in fact, teaches us that they are manifested in all forms of insanity—melancholia, mania, partial delirium—down to weakness of mind and general paralysis."

This fully accords with whatever has been advanced by us, to wit, that there is no moral insanity, as a distinct phrenopathic form, and that the perversion of the moral sense, when it does not proceed united to perfectly physiological states, is always met with, connected with either one of the ordinary forms of insanity, or with that weakness of mind which we call partial imbecility. *De Boismont* afterwards, in another sitting of the same society, returned to the subject, and said that reasoning mania and the delirium of actions are symptoms which are met with in all forms of insanity, and he affirmed that in the affected persons, when they are closely observed, *we can no longer indulge a doubt as to the disorder of their intellectual faculties.*

Delasiauve participated in the opinion of those who hold that the moral faculties may suffer lesion separately; but he believed the so-called moral insanity should be re-entered among the pseudo manias, and he styled it *partial diffuse delirium*. As to the rest; in an observation dropped by him in close conversation, he recognized the fact that in these patients there have existed potent hallucinations. At a subsequent period, when speaking of the work of *Campagne*, of which we shall speak hereafter, he said that the delineation of reasoning mania presented by that author, was very elastic, and contained very different species, and that over and above it embraced *the first degrees of idiocy.*

Baillarger rejects the term moral insanity, which may be applied to a too large number of mental alienations. Certain cases, it appeared to him, ought to be placed among the monomanias, and he would therefore provisionally propose the denomination, monomania with consciousness.

Berthier defines moral insanity an inferior grade, a *rudimental state* of the other forms of insanity, whose characteristic is super-excitation; he therefore called it *stoechiomania*, or *rudimentary insanity*, because it is the most simple psycho-cerebral order, or fundamental, and therefore it either has existed, or it exists always in the alienated man.

Verga said that reasoning mania *is not a new type*, or a new elementary form of mental alienation, as mania, melancholia, hallucination, stupidity or dementia, because it presents nothing special or peculiar to itself. He added: "It is by no means a variety or a sub-species of either of the types now named, because it may be found in all types. The majority of the insane, in some stages, or in some moments, are reasoning." A little afterwards he stated that "the bad instinctive tendencies could not be regarded as differential characters of this mental state, because bad tendencies ordinarily persist into insanity, without having anything of a diseased nature;" and in conclusion he said that "lesions of sensibility, or of will, if not accompanied by lesions of intellect, could not constitute a neuropathia; this moral monstrosity should be treated in general hospitals and houses of correction, and not in insane asylums."

Verga, however, in process of time, found a place in his classification for moral insanity, but he has said that "it is yet undecided whether it is a form distinct and independent, or a simple variety or gradation of the common forms of insanity; and he has given place to it, because it is difficult to public opinion to accept it, and should medical alienists give it more attention, the establishment of criminal asylums would thereby be pressed on public attention, and he regarded these as particularly fitted to the reception of the victims of moral insanity, and of impulsive monomania. He would associate, under the denomination moral insanity, the *manie sans delire* of Pinel, the *monomania raissonnante* of Esquirol, the *lucid insanity* of Trelat, and the *insanity of actions* of Brierre de Boismont.

Campagne, who has written an important article on reasoning mania, makes it consist in a preponderance of the egoistic passions, transmitted from generation to generation, ever in increasing progression, by virtue of the law of *natural selection*. He, in like manner as Darwin, admits that moral character is inherited, and that it is founded on a special organization; he further, when speaking of the parents of his patients, clearly shows that they had transmitted to their offspring a generic intellectual weakness, which alone could serve as the intrinsic basis of the moral defect. Noting the psychical peculiarities of the progenitors of his patients, he says that these are the expression of mental defect, which, in relation to the intellect, leads to a notable weakness of the faculties, in erroneous judgments, extravagant ideas, and a greater or less absence of common sense, &c., &c., and that, as

regards the moral condition, it is exhibited in a predominance of egoistic sentiments or passions, and a correlative weakness of the higher sentiments.

It is useless here to repeat that the mental defect noted by Campagne, in the genealogy of his patients, is perfectly identical with partial imbecility, according to the idea which we have formed of it, and that the distinction made by Campagne between intellectual and moral weakness is to us of no value. We have shown that the egoistic sentiments are naturally preponderant in those who, by their own intelligence, can not reach the conception that the general utility should be placed before individual gratification, and that only by a suitable education can such persons be led on a different way to the accomplishment of that idea. As concerns our own views, then, that which is inherited is generic imbecility, or better, the organic relative state, and not specific moral imbecility, because the latter inheres in the former.

Fielding Blandford, in a remarkable article on insanity without delirious conceptions, admits this phrenopathic form, yet not as a distinct form, since he says it is met with in senile dementia, and congenital intellectual weakness, &c.; that is, in those states, which have already been defined by other characteristic signs, and which, according to the somatic school, can not be brought under one species, because of the sole common character of the want in them of delirious conceptions, or of the existence of a moral perversion.

Blandford, in his work on mental diseases, which has reached us in a German translation, says the want of the moral sense may be met with even in persons quite sane, and that therefore it can not characterize an abnormality of mind, which, when it exists, ought to be shown by the presence of other psychical symptoms. He says that the writers who sustain the doctrine of moral insanity have frequently not appreciated, or have overlooked altogether the changes of intellect in affected individuals. He analyzes seventeen cases of moral insanity observed or cited by *Prichard*, and demonstrates that they appertain to known forms of insanity. He establishes the fact that in all the cases of the so-called moral insanity there is always intellectual defect, or disorder, and he relegates all the so-called moral fools, either to the class of imbeciles or to those of the known forms of insanity.

Balfour Brown, in his allusion to moral insanity, thus expresses himself: "A moral insanity, a psychical affection, whose exclusive symptomatic indications consist in words and improper acts, does

not exist; and if it does not exist, alike in the interest of the real malady and its subject, the evil-augured denomination should be abandoned, and we should openly declare that the affected individual suffers, for example, under psychical weakness, or melancholy with anxiety, and the delirium of persecution which impels or constrains him to unlawful acts."

Ordronaux, professor of legal medicine in New York, and inspector of insane establishments, even farther evinces his aversion towards the theories which have given a place to moral insanity among nosological species. He closes by saying that "the admitting of a moral insanity is equivalent to remounting on the course of past centuries, and rehabilitating in medicine their superstitions and supernaturalisms."

Fleming says that, from Prichard onward, the idea of moral insanity has been ever more and more surrounded by obscurity, which has become always more indeterminate and uncertain, and at length threatens to carry notable confusion into the distinction which should be made between crime and insanity. For these reasons he believes it opportune to revert to the facts which have given origin to such an idea, and finally to give to them their proper interpretation. This Fleming does with that acumen which distinguishes him, and he shows that the facts cited by authors, not excluding Prichard, appertain to the prodromic states of mania, or to transitory mania, (*furor melancholicus vel mania acutissima*), to the intermittent mania of Hencke, or to imbecility. He concludes, marveling that one of the most distinguished English alienists, Maudsley, has ranked himself among the partisans of moral insanity as a distinct form, and has been able to think that the moral sense is, on a par with the intellect, linked with a special organ capable of becoming isolately diseased. So long, he says, as in physiology a special organ for the moral sense and conscience shall remain unknown, we should firmly hold to the axiom of solidarity existing between the intellect and the sentiment. He finally adds, that, as a consequence, the conception of a moral insanity as a distinct morbid species, falls to the ground, and that the time has now come for banishing from psychiatry the idea of moral insanity, as that, in general, of partial deliriums or monomanias.

Knop denies the existence of moral insanity as a morbid species, *in se*, and regards it, on the contrary, as a symptomatic complex, which is sometimes observed in the prodromic stage of the *psychoses*. The other individuals presenting a similar symptomatic

complex, he says are, either offenders with sane minds, or real fools. *Knop*, supporting himself on the realistic psychological doctrines of *Herbart* and his precursor, the celebrated *Locke*, maintains that a true insanity without delirium is impossible to be conceived; he confutes the doctrine set forth by *Maudsley*, in his discourse of medical psychology, and above all, he confutes it in showing how absurd it is to admit the existence in the brain of an organ destined to the elaboration of the moral sense: he establishes by solid arguments, the solidarity existing between the moral and the intellectual faculties, and he holds as we do, that besides the intellectual defect, the exterior circumstances, as the social conditions, education, &c., contribute to the perversion of the moral sense. He closes his article exclaiming, "administrators of penal justice, take care that the so-called moral insanity may not be destined to wrest from your hands the sword of justice!"

Maudsley, in various of his important labors, and more especially in his discourse relating to medical psychology, and his work on "responsibility in mental disease," admits moral insanity, not with the idea of introducing it into a classification of insanity, but to give distinction to a mental state which might serve as a suitable process for setting forth and discussing medico-legal questions. In fact, he says that moral insanity in the great number of cases, accompanies intellectual insanity, and is the consequence of the common causes of insanity; that it precedes and follows the other forms of general insanity; that it is presented along with epilepsy and imbecility, and may end in dementia. In substance, he admits the inclusion of one insanity in another, and whilst it might have been a more suitable process to say that in all forms of insanity and imbecility we may meet, in the prodromes, in the course or in the sequence, a perversion of the moral sense, as an accessory phenomenon of complex origin, he has preferred, in posing a medico-legal question, to say, for example, that this affection resulting from senile dementia, also is a moral insanity. This is a direct consequence of the doctrines professed by *Maudsley*, on the moral sense, doctrines brilliant and in point metaphysical, but who would not also say, in point poetical?

Maudsley says that just as there are persons affected with Daltonism, who can not distinguish colors, and others who, having no ear for music, are incapable of distinguishing one note from another, so there are individuals who are born devoid of moral sense. We may remark, in passing, that the comparison of *Maudsley* will convince us, when he shall have demonstrated to us

the existence of a specific sense which may serve to cause us to distinguish that which is moral from that which is not so, in the same manner as the eye and the ear serve to enable us to distinguish colors and sounds. Then only shall we be able to comprehend this species of Daltonism, as applied to the moral sense. "In the individuals born devoid of moral sense," adds Maudsley, "this defect is accompanied, not always, but frequently, by a greater or less diminution of intelligence." He recognizes the fact, however, that intellectual weakness exists in the majority of his moral fools, (and we would say, in all those not affected with the ordinary forms of insanity, or in malefactors), but bound down by the evolutionary doctrines, rather than regard the defect of the moral sense as a consequence, more or less direct, of an anomaly in the organs of intelligence, he would have it to descend directly from the lesion of a hypothetic organ which neither physiology nor pathological anatomy permits us to accept. And thus, forsooth, those moral perversions which are observed in the prodromes of various forms of insanity, and which we explain as the effect of an intellectual weakness, determined by an incipient affection, of light degree, of the organs of intelligence, Maudsley is constrained to regard as the effect of a disease located in certain brain cells, which disease, afterwards diffusing itself into the intellectual cells, ends by bringing in insanity, and even the death of the intelligence. But this is contradicted by pathological anatomy, which reveals to us that, correspondently to the mental phenomena indicated, very often the morbid process is not diffused from one point to another of the brain, but, confined to the same locality, it augments in gravity, and, passing through its divers phases, it is transformed, even to its termination, into the atrophy of those same parts in which it commenced. In other respects we have found ourselves in accord with Maudsley on many points, and here and there in our work we have not failed to draw support from his authority.

Kornfeld regards in the same manner as ourselves the so-called moral insanity, and would have those affected by it partially irresponsible.

Kraft-Ebing admits moral insanity, not as a special nosological form of alienation of mind, but as a particular psychical degeneration, which may be the expression of defective organization of the brain, congenital or acquired. If we are not mistaken, the name moral insanity would not serve *Kraft-Ebing* as designating a special malady, but merely that moral perversity which may be observed in a certain insane person having defective organization

of the brain, from a congenital or acquired cause. But as such a perversity is met with also in vulgar delinquents, he is obliged, in order to distinguish these two states, to have recourse to other signs more positive and characteristic; in a word, he is brought to confess that the psychical phenomenon, moral perversity, of which he availed to denominate the mental state of the individual related, is not actually characteristic, as it is proper also to other states. That which appears strange to us is that he should actually have availed of this non-characteristic phenomenon to give a name to a determinate state, and not rather of those constant phenomena to which he afterwards appeals, in order to decide whether the individual in whom the first phenomenon was observed should be considered as of sound mind or not. Among these characteristic phenomena he places those which have regard to the intellectual processes. Delirium and hallucinations, which may be presented only as complications, are wanting, but the intellectual functions are not intact. The affected individuals are intellectually weak, inapt to regulated activity, little susceptible of culture, strange in their reasonings, very limited in their fitness for judging; and he concludes that in a series of cases there exists a *quasi* intellectual imbecility. With such characters, and others masterly delineated by *Kraft-Ebing*, it seems to us he might more justly have reached our conclusions—that there is no moral insanity, but yet there are fools (*pazzi*) and imbeciles who, besides the necessary characteristic phenomena that distinguish them, present also, as an accessory and secondary phenomenon, moral perversity.

Despine admits the distinction of the mental faculties into intellectual, moral and instinctive. The moral faculties, according to him, impart an innate science—a science of inspiration—through which the individual has tendencies, repulsions and moral aspirations, without the occurrence of any labor of reflection, a labor properly called intellectual. This so-called moral sense is for him an instinctive faculty. *Despine*, being a medico-philosophic spiritualist, is naturally led by his doctrine to admit that the moral faculties may be injured independently of the intellectual, and therefore to admit also moral insanity; he even says that moral insanity is the only class of mental alienations that merit the name of insanity, and hence he defines insanity as a psychical state consisting in moral know-nothingism, (*incoscienza*),—a psychical state which may be met with in the sane as well as the insane; and thus he admits a moral insanity observable in certain cerebral diseases, as general paralysis, epilepsy or hysteria, and a moral insanity

which may be met with in a man perfectly sane. Despine has thus been led by his doctrines to regard as moral fools all law breakers, and to declare them morally irresponsible.

Livi accepts moral insanity as an independent morbid form, and believes that moral fools are born naturally framed for evil-doing; he says the perversion of the moral sense is closely bound up with the *bad organic paste* of the affected individual. He admits that in his moral fools the integrity of the intellectual faculties is only apparent, but rather than seek in the intellectual weakness or disorder the moral perversion, he chooses, on the contrary, to regard the egoism and pride existing in such persons, as acting in a certain way as a corrupting ferment of the intellect, and hence the unfitness of the mind for any study, the manifest inability to manage their own affairs, to do anything wise or reasonable, the vanity and strangeness of ideas, the transiliency of discourse and the absurdity of judgments which are observed in moral fools. As to the rest, the ideas of *Livi* on moral insanity, which he once denominated mania, ideas accepted without discussion by a few Italian alienists, it is well to be known that they descend directly from the psychological doctrines professed by this brilliant alienist, doctrines which led him to admit four primitive faculties of the human soul, so independent of one another as to be separately susceptible of lesion; these faculties were *the sentient, the affective, the volitional, and the cognitional or intellectual*.

Dagonet, where he speaks of reasoning mania, which he makes synonymous with moral insanity, gives us to understand that in the cases concerned, nothing but a variety of mania has been treated of; that in the affected individuals the intellectual state may be more sound in appearance than in reality, and that even a trivial study of cases may suffice to discover in them fixed ideas, strange illusions, numerous errors of perception, &c. In another part, concurring in the views of Fleming and Marcé, he admits that moral insanity should not be regarded as a special clinical form, but much rather as a mental disorder, in which the symptom most notable is the disturbance of the moral sense and of the instincts, and he adds that in the reported cases of moral insanity, there are always troubles of the intellectual faculties, and that in the majority of the cases, the only difficulty is the discovery and clear establishment of these troubles.

Jules Falret, whose views, as expressed in 1866, we have indicated in a preceding part of this article, ten years after, before the

Medico-Psychological Society of Paris, took occasion to reaffirm and largely extend the same opinions. He again asserted that the expressions, reasoning mania, moral insanity, &c., are vague, and may be applied to conditions often very different; he said that the physical signs admitted as indicating reasoning mania, are common to all the hereditary forms of *Morel*, and that many of these signs are variable and transient. He further recalled attention to a second point, to him most important, that is, the relation between reasoning mania and the arrest of intellectual development, imbecility, idiocy, &c. On this point he showed the parallelism which exists in the psycho-physical semiology, between reasoning fools and the imbecile. In a word, Falret, without perhaps knowing of my first labor on the so-called moral insanity, which had then been published, following the same road, came to the same conclusions as I had reached.

Baillarger, making only a few objections to the opinions expressed by Falret, showed that he did not dissent from them, but that they should not be too far generalized.

Delasiauve, speaking on the same matter, said that Falret, in approximating moral fools and imbeciles of the first degree, had opened up an horizon till now not at all considered, and he said that in the greater part he assented to his views.

Lunier recognized the fact that, fundamentally, imbeciles, reasoning fools and mad offenders are groups of individuals belonging to the same category. In the elementary phenomena they are similar, and only at a certain age are they to be distinguished; this accords with our mode of viewing the question, which is, that the difference between imbeciles of a light grade and the so-called moral insane (*folli*) has been due solely to the sort of education received, and to the exterior circumstances which concur to the development of the complex psychical phenomena, because the above stated diversity would not otherwise be realized only at a certain age, but from the beginning of life of the individuals.

Billod does not admit moral or reasoning insanity as a distinct phrenopathic form.

Lombroso, with regard to moral insanity, notes that the study of divers cases makes more known from day to day, that they enter into the common forms of general paralysis, epilepsy, pella-gra, puerperal phrenzy, &c.

Stolz accepts the denomination moral insanity, without entering into the related questions. His object is above all to show that there are many immoral individuals who ought to be regarded as

insane; yet, in describing such, he thus expresses himself: "From the astuteness and the dexterity with which they set about the accomplishment of their improper acts, the intellectual faculties of these alienates might seem to be intact, and, to a superficial observer, even well developed. Notwithstanding this, on more close and exact investigation, it is found that these faculties are not rarely defective, and always defectively developed; so much so that such individuals do not recognize and comprehend what is hurtful to themselves, nor the true character of their own egotistic moral aspirations." "They are, therefore, in their views and judgment, always confused and one-sided." A little farther on, when speaking of the etiological evocants of moral insanity, besides those causes which may produce any form of the disease, he instances *neglected or perverted education*, probably because it had not escaped him that in the imbecile the perversion of the moral sense is due, not only to the defective organization of their brains, but also to the exterior circumstance of their neglected or evil education.

Mendel read an erudite discourse on moral insanity at one of the meetings of the Hufeland Society of Holland, in Berlin. In this he said he admitted moral insanity, but in the development of his argument he clearly showed that the conception he had formed of such a mental state was very different from that held by those who regard it as a distinct phrenopathic form. He spoke of a moral insanity which makes part of a symptomatic complex, proper to diverse cerebral affections with mental alienation, (as epilepsy, chorea, hysteria, senile dementia, progressive paralysis, alcoholism, &c.) and a moral insanity independent; the last he divides into the congenital and the acquired. In both these forms he recognizes that there is always a certain weakness of the intellect, though in certain cases it might be slight. The basis of this mental state he believes he finds in *paræsthesia* of the sentient apparatus, because, as he says, if the intellectual weakness had here any primary or determinate value, there would not be a grand series of imbeciles without moral perversion. We have, in a preceding part, examined the value of this argument, where we have shown that it can not invalidate our doctrines.

A. Berti admits moral insanity; we know this from a review of his work, "*Insanity and Homicide*," published by the distinguished *Tamassia*, and also from the words spoken by him at the Second Italian Phreniatric Congress. We do not, however, know whether he admits it as a distinct phrenopathic form, or as a mani-

festation of some of the known forms. In the Congress he spoke of a meliorated (*migliorata*) moral insanity, and this leads us to believe that he had not the same idea of moral insanity as Prichard had. On the other side, it might be said that the case of moral insanity related in his work might be called that of a semi-imbecile, in whom a defective and perverted education, more than poverty of intellect, had contributed to pervert the moral sense, and to favor the development of evil passions.

Bigot, in a remarkable work, asserts that if there are reasoning insane persons, there exists not, *per contra*, a reasoning insanity, and that this pretended species of insanity does not constitute anything other than a period, more or less obscure, of the ordinary forms of mental alienation.

Vigna admits moral insanity, but, analyzing it with his wonted acumen, he recognizes that in the mental state described, the individual, instead of evincing a true intellectual superiority, usually approaches to the most degrading forms of insanity, and is very near to idiocy itself; and, after having spoken courteously of my first labors on the subject, he said that from his own studies also he had been drawn to the conclusion that in such cases either a real blank in the psycho-encephalic organism was treated of, or, in other words, an idiocy or partial imbecility. In fine, *Vigna* agrees with me in denominating as a neurism the organic substratum of this mental state.

M. Gauster has expressed almost the same views on moral insanity as I had already exposed. He says the symptoms attributed to this so-called moral insanity are met with not rarely in the prodromes, and also in the course, of various forms of insanity, and that in the cases which have been described as true cases of independent moral insanity, it is not the fact that a special form of insanity has been treated of, in which the intellectual faculties were intact, and only the moral affected. "The opinion," he adds, "that one faculty of the mind can be altered, and not the assemblage of the psychical functions, evidently proceeds from the purely metaphysical division of the functional psychical manifestations, suggested by abstract speculations. So far as we know of the structure and the functions of the brain, this antiquated opinion is contradicted." "Now," says the same author, "whenever a searching and diligent examination of the so-called moral fools is carried out, it will be seen that we have not to do with merely a moral perversity, an obtuseness of the so-called moral sense, but that in all the psychical functions of the brain there is a deviation from

the normal and median individual, a deviation which, in the general rule, is characterized by a debilitation; in a word, it will be seen that we have not to do with a moral stupidity, but, in general, with an imbecility more or less developed, and that more frequently of a high degree." Gauster afterwards says that, "in the majority of these patients, the blame for the excesses which they commit should be laid paramountly on the persons around them, and that when treated conveniently, even when they can not be cured, they may yet lead a tranquil and better life, and, if not a useful one, at least one harmless to the rest of society."

Leidesdorf does not recognize moral insanity as a distinct phrenopathic form, but he identifies it with the first period of mania, (*Tobsucht*), and also with simple lypemania.

L. Monti accepts, in the greater part, my views on the so-called moral insanity, and concludes by holding that the basis of it rests on a primitive lesion of the intellect; a lesion which, if it does not appear manifestly in some cases, yet always subsists, and is well revealed on attentive observance of the affected persons.

Mendel, in the session of the Medical Society of Berlin, on the 10th of January, 1878, read another paper on moral insanity. Unfortunately, we have nothing of it under our eye, but the summary of the discussion which took place after the reading—a discussion in which *Westphal* took a leading part. From that summary we have gathered that *Mendel*, resting on new experimental studies of the functions of the brain, according to which the intellect would be localized in the anterior lobes, and the faculty of sentience in the posterior, showed himself disposed to regard moral insanity as a paræsthesia of the posterior lobes of the brain. But *Westphal* was opposed to this totally hypothetic mode of viewing the subject, and, closely in accord with us, he declined to recognize in moral insanity a true morbid process, but simply a defect in the psychical activity, a defect which concerns not only the sentient sphere, but also the intellect; and he concluded, this defect is, in a word, designated by an *imbecility*, which is certainly an extraordinarily special degree, for the recognition of which much attentive study and much time and practice are required. "This special grade of imbecility," he then said, "consists in the want of general ideas and views, because of which the individual affected thinks and acts rightly up to a certain point; that is to say, until he comes to form general judgments; and to these general judgments appertain those relating to morality and the high social relations, &c."

Chernicke, in his work on conscience, speaking of the moral sense, (*Gemuth*), concludes with the following words: "It is certain that this is not localized, although there are psychiatrists who believe it can be affected separately, and that they have found in moral insanity the clinical form of such a malady. The reader who has kept in mind my exposition, must have been convinced that a similar opinion not only has nothing in its favor, but also that it is in contradiction to all that we know of the composition of conscience."

Reimer distinguishes a moral insanity which accompanies other mental forms, and a moral insanity to be considered as an independent form; the latter he derives from a lesion of the will, and a defective receptivity of moral ideas, due to congenital disposition. But on the other part, he admits as a certainty, that the development of the moral sense is due to the influence of the family, of the school, and of the other social circles in which the individual has lived; in other words, to the exterior circumstances which act on the intellect—or to education.

Schule places moral insanity among the degenerative states which join in the same class with states of defect, that is, with idiotism; adverting that the former in relation to the latter constitute a state more elevated towards normal development. As to the rest, *Schule* makes of moral insanity a special clinical form, and as such he describes it, taking into view especially, the defect of the moral sense, which is met with in the affected persons, following in this, *Prichard*, *Kraft-Ebing* and others. But it is remarkable, that when speaking of the psychological mechanism through which the moral anæsthesia is originated, he recognizes the fact that the entire psychical life concurs with the formation of the moral sense, that certain intellectual lesions may be the cause of erroneous judgments, under a moral aspect, and that at certain times judgment is incorrect, because the excitation which evokes it has acted too violently, and in such a manner as to render the person unable to reach a clear perception of the matter.

Dittmar, after having spoken of the distinction once made between mental and moral diseases, added, that as to the latter, it is no longer treated in scientific works, because there can not exist any alteration in the sentiment, (*Gefühl*), without disorders in the intellectual life, disorders which, for a certainty, are often calculated to escape the observer not yet experienced, and which, therefore, have not been designated as true delirium.

H. Emminghaus regarded moral insanity as a species of psychical degeneration which originates in individual predisposition, and is manifested either in a state of constant psychical weakness, or a psychopathic state of progressive course. According to *Emminghaus*, moral insanity is therefore not a special disease, but rather a complex of symptoms, a series of psycho-pathological phenomena, among which anomaly of the sentiments predominates, and just as he elsewhere speaks of sentiments intellectual, religious, moral and social, and thinks they must owe their origin to processes of ideation of a high order, so for him, the so-called moral insanity can not be a thing distinct from intellectual insanity, and therefore it is quite possible that it may be met with along with any disease whatever, which brings with it a disorder or defect of the intellect. As to the rest, *Emminghaus* shows clearly, that in using the term moral insanity, he does not intend to admit a special form of insanity independent of every intellectual defect, since he says that in the individuals affected, those ideas and judgments are wanting, which owe their origin to the more elevated intellectual sentiments.

The ideas of *Eacopardo* and *De Nusca*, opposed to the notion of moral insanity, I deem it useless to set forth here in the new, as *Tamassia* has done this in his valuable review in this journal. I also omit speaking of the opinions of *Palmerini*, conforming to my own, learnedly exhibited by the same writer in the same periodical.

It was my intention to add here, by way of conclusion, a series of corollaries, which it appeared to me might follow the citations made by me. But besides the fact that a sterile chain of propositions might poorly serve to represent my ideas, and to justify them with such as might not have kept my arguments well in mind, it appears to me that the order observed in discussing the controverted points in the argument, and the division of the work into chapters corresponding to the respective theses, may warrant me in dispensing with useless repetitions.

I can not, however, lay down the pen, without first stretching my hand to my distinguished adversary, *Professor Tamassia*, and thanking him for the privilege granted me, with his learned and polite remarks, of again pursuing my argument. If my words should have the good fortune to have dissipated any ambiguity, and to have reduced to their just value certain questions more of words than of principles, and of narrowing the divergencies of

existing views between me and the noble professor of *Pavia*, I shall be abundantly satisfied, for then, indeed, this, our conflict, entered on from the sole love of science, and free from all personal resentment, may in part have contributed to the solution of the intricate problem, and may have served to place me in scientific accord with a clever colleague, whom I highly esteem, and whose friendship honors me.

Ferrara, 1st August, 1878.

BIBLIOGRAPHICAL:

REVIEW OF AMERICAN ASYLUM REPORTS, 1878-79.

MAINE:

Report of the Maine Insane Hospital: 1879. Dr. H. M. HARLOW.

There were in the Hospital, at date of last report, 418 patients. Admitted since, 196. Total, 614. Discharged recovered, 53. Improved, 52. Unimproved, 60. Died, 30. Total, 195. Remaining under treatment, 419.

Of the admissions, 109 were men, and 87 were women; while of the deaths, there was a much more marked preponderance of the male sex—22 out of 30, occurring among the men. The Doctor believes that insanity is on the increase, and though he gives no facts to sustain the opinion, offers some timely advice regarding the prevention of the disease. His remarks are based upon the recognition of disease of the brain as the cause of insanity, and of the intimate connection between the mind and body. He therefore insists upon the care of the bodily health, and attention to the laws of hygiene of both body and mind. He points out the earliest signals of danger upon both the mental and physical side of our nature, and sounds a note of warning, which, if heeded, would, in many cases, ward off the disease.

Such warnings and advice are given from time to time in the reports of all institutions, and still, too little attention is given by the general profession, as well as the public, to those efforts of superintendents toward enlightenment regarding the prevention of insanity. The trouble lies with the people,

who are indifferent, or neglect to profit by the information, until insanity actually appears. The idea in the minds of many seems to be that some great discovery, some new principle or remedy must be sought out by the profession, and placed in their hands. They are not satisfied with an exposition of the physiological laws, and with a statement of the various causes and steps of departure which finally lead to disease.

Some important improvements are recorded as having been effected during the year, among them the building of gas works and the erection of a green house. The great want in the State is for further accommodations.

RHODE ISLAND :

Report of the Butler Hospital for the Insane: 1879. Dr. JOHN W. SAWYER.

There were in the Hospital, at date of last report, 170 patients. Admitted since, 107. Total, 277. Discharged recovered, 43. Improved, 49. Unimproved, 25. Died, 12. Total, 129. Remaining under treatment, 148.

The report gives gratifying evidence of the continued usefulness and prosperity of the Institution. It records increased efforts to promote the health and happiness of the inmates. Special attention has been given to reducing the amount of restraint, and of multiplying the means of recreation and diversion. The patients have been given the fullest liberty of the grounds, have enjoyed the advantages of pleasure trips, out of door sports, riding and numerous pleasant entertainments within doors. Occupation on the farm and garden, at the barns, and in the labor of the house, were given to all who were in a condition to be employed. Mention is made in both the reports of the Trustees and Superintendent, of the meeting of the Association in June last.

In speaking of this, the Trustees say "their very presence was a source of encouragement and strength. Under the teaching of their larger and wider experience, everyone felt himself better prepared for the work—whatever that work might be—imposed by his connection with the Hospital." They also report a generous gift from one of the patients, of a 'beautiful and well stocked conservatory. Other gifts here acknowledged, show that the Institution has many friends who are willing to contribute of their means for the aid and support of this beneficent charity.

NEW YORK:

Report of the Willard Asylum for the Insane: 1879. Dr. JOHN B. CHAPIN.

There were in the Asylum, at date of last report, 1,395 patients. Admitted since, 221. Total, 1,616. Discharged recovered, 5. Improved, 25. Unimproved, 29. Died, 55. Total, 114. Remaining under treatment, 1,502.

The average duration of insanity in those who died during the nine years reported was ten and two-third years. The mortality rate for the year, reckoned on the resident population, is less than four per cent. The average cost of maintenance has been \$2.63, and, including clothing and salaries of officers, \$3.03. This is exclusive of the large products of the farm. The cost per capita for land and buildings has been \$790. Appropriations are asked from the Legislature for the erection of a new group of buildings for women, thus enlarging the capacity to 1,800 patients. Two more assistant physicians are asked for, one of whom should be selected with special qualifications for pathological investigations. This request we hope may be acceded to by the Legislature, as there is certainly a large field

for such scientific research. The Asylum is now overcrowded with patients, there being about 100 women for whom accommodations are being prepared in the new group, now in the process of construction. Attention has been given to the employment and diversion of patients. The number of attendants at present employed is 133, an average of about one to twelve patients. Speaking of the results attained by treatment in the Institution, the report says that sixteen per cent, exclusive of deaths, of the whole number received into the Asylum have been discharged to the care of friends, and this number could be much increased if there were friends to receive them. This fact, together with the improved condition of a large number, furnishes a gratifying result.

The Doctor, in discussing the question of asylum organization and administration, shows the groundless character of many of the strictures made upon the authorities and officers of institutions for the insane. In reviewing the work of the first decade of the existence of the Asylum, he closes as follows: "Whether the work is viewed from a financial standpoint alone, or the higher plane of humanity, the direct and indirect results accomplished here may be presented as a satisfactory fulfillment of a public trust."

Report of the Hudson River State Hospital: 1878. Dr. J. M. CLEVELAND.

There were in the Hospital, at date of last report, 228 patients. Admitted since, 139. Total, 367. Discharged recovered, 27. Improved, 17. Unimproved, 69. Died, 22. Total, 135. Remaining under treatment, 232.

The subject of mechanical restraint is thus treated of by the Board of Managers:

"During the past year public attention has been directed particularly to the use and abuse of mechanical restraint in the treatment of the insane. The question of *mechanical restraint*, and the expediency of its abolition or restriction in this Hospital, have been as thoroughly considered by the managers as the time at their disposal admitted. They find that the amount of mechanical restraint employed in this Hospital, since our accommodations for patients have been enlarged, has been reduced to what may be safely considered, under the existing circumstances—overcrowding on the excited wards—a minimum degree.

In this connection, and not as an apology for mechanical restraint, we would refer to the discussions which are going on in England and elsewhere, and call attention to the fact that, while it is alleged that mechanical restraint is entirely abolished in many places from which arguments come against its abuse, that more dangerous methods are employed than are in use in American asylums. It has been claimed by some distinguished English alienists that, for many years, it has been totally abolished in Great Britain, and that the best results have followed this course. But, upon a careful examination of the evidence furnished by their parliamentary reports, the last Blue Book particularly, and by individuals of their own body, verbally, and in medical journals, it appears that forms of restraint—not technically termed by them mechanical, but much more severe and objectionable than those used in American asylums—are employed in Great Britain; also, that the percentage of cures, since the alleged abandonment of mechanical restraint, has but very slightly increased—"three or four per cent in forty years," according to the statistics published by Dr. Mortimer Granville.

In the very best managed asylums, and under the most humane physicians, it must be admitted that personal restraint, and often of the most restrictive character, is occasionally needed. The question is, shall this be manual or mechanical?

As regards *physical* injury to the patient, none is likely to attend the use of proper mechanical appliances, such as are occasionally employed by us; their arrangement and application being such that the patient can not exert his strength in such a manner as to do himself injury, while, at the same time, a certain range of action, sufficient for moderate exercise of the muscles, is always permitted. But accidents in English asylums in the last twenty years, which have been brought to light through the investigations of lunacy commissioners, and committees, and coroners' inquests,

indicate that the same immunity can not be claimed for manual restraint. Bruises, fractures, internal contusions, lacerations, and even death have resulted.

As regards the *mental* and *moral* influences of the two systems or methods of restraint, it is well known that, under mechanical restraint, patients are comparatively quiet, as regards muscular exertion, and soon abandon resistance. Whereas, under the application of manual force, they usually persist in their struggles until completely overcome by physical exhaustion. It is not difficult to estimate the unpleasant emotions, the feelings of anger, exasperation and revenge which would be engendered by such a contest.

The ability to restrict the use of mechanical restraint depends on so many conditions, which may widely differ in different asylums, that no one ought to criticise the management of anyone without a full acquaintance with these conditions. Some of these are within our control, and some are not. Thus, the *character and relative number of the attendants*; the *amount* of available space, and the *peculiar distribution* of this space—that is, the interior construction of the hospital; the *extent of the grounds*; the resources for *amusements*, and the out-door and in-door *employment* of the patients are modifying conditions which demand the first consideration. The first and last are, in our estimation, the most important, though these are more or less intimately associated with the others. In our case, most of these conditions are, or may be, in a great measure, under our control.”

The Managers ask whether a school for nurses would not assist in developing a better quality of attendants? The fact is, every well-organized hospital for the insane is a training school for nurses and attendants. In speaking of amusements and employment, they reiterate what has been so often said by men experienced in the care of institutions of this character. They state:

“The out-door employment of men patients consists in farm and garden work, in milking and grooming the cows and the care of their stables, the removal and composting of manure, in the care of poultry, and in grading and improving the grounds, and in the construction of roads upon the place. The out-door working parties are engaged from three to four hours in the forenoon, and

the same number of hours in the afternoon. This we find to be the extent as regards time to which the insane can be thus employed with advantage to their health. The quality and quantity of the service rendered by different individuals varies greatly; some patients are feeble, others have more strength; some are careless, listless and idle, or work by fits and starts, while others again are deft, persistent and energetic; then, too, the labor of all is frequently interrupted by resting spells. Hence arises the difficulty in computing the value of their labor, and comparing it with the service rendered by sane workmen. Some authorities claim that the labor of one sane man is equivalent to that of three patients, while others state the proportion one to five."

They estimate the value of the labor thus far performed at \$4,500. As to the work of the women, they state, : "The ordinary mending of patients' clothing for the whole house is done by the women patients, who also make up the sheets, pillow-cases, chemises, shirts, etc., besides assisting in the care of their wards and dining rooms, and assisting in the laundry work." The amount saved to the Institution by these services is estimated at about \$2,500. It will be observed that the work here enumerated is done in most of the institutions throughout the country, to a greater or less extent, according to the number of patients, the amount of land to be worked, and the character of the work to be done.

Report of the Resident Physician of Brigham Hall: 1879. Dr.
D. R. BURRELL.

There were in the Hall, at date of last report, 60 patients. Admitted since, 43. Total, 103. Discharged, 37. Died, 7. Total, 44. Remaining under treatment, 59. Nothing is given as to the results of treatment.

Report of the Board of Managers of the Buffalo State Asylum for the Insane: 1879.

The receipts and expenditures of the year are given in full, and the building superintendent makes a statement in detail of the progress of the work. The administration building and the wards on one side are in an advanced stage of completion. The necessary out-buildings, as laundry, barns, ice-house, &c., will be finished by the time the Asylum is ready for occupancy. Much labor has been done upon the grounds in the way of grading, setting out trees and making walks and drives. The speedy opening of the Asylum for patients is promised.

NEW JERSEY:

Report of the State Asylum for the Insane at Morristown: 1879.
Dr. H. A. BUTTOLPH.

There were in the Asylum, at date of last report, 480 patients. Admitted since, 164. Total, 644. Discharged recovered, 33. Improved, 39. Unimproved, 7. Died, 38. Total, 117. Remaining under treatment, 527.

The greater portion of Dr. Buttolph's report is devoted to an exposition of his views of cerebral physiology. These are those first expounded by the German physiologist Gall, and subsequently adopted by Spurzheim, Combe, Hunter, Ellis and others, and more recently taught by Fowler, Sizer, Caldwell and other phrenologists in this country. The central principles of this doctrine are, that the mind is endowed with a plurality of innate faculties, each of which has, in the brain, a particular organ, and that the relative size of these cerebral organs can be ascertained from an examination of the outer surface or skull covering the brain. While advocating this opinion, and thus sustaining the doctrines of phrenology, the Doctor claims

that all the light gained from post-mortem examinations and pathological investigations can be as well utilized by this, as by any other view of the physiology of the brain, and thus places himself in accord with the present spirit of scientific study and progress. He also claims that it is a rational and practical basis for the medical, mental and moral treatment of each and every case of insanity that may occur.

Progress is reported in the work of grading and improving the grounds. Increased facilities for the storage of water are demanded. This has been brought into greater prominence by the unusual dryness of the past season.

Report of the New Jersey State Lunatic Asylum at Trenton:
1879. Dr. JOHN W. WARD.

There were in the Asylum, at date of last report, 523 patients. Admitted since, 132. Total, 655. Discharged recovered, 36. Improved, 16. Unimproved, 6. Not insane, 3. Died, 47. Removed to other institutions, 41. Total, 149. Remaining under treatment, 506.

Attention is called to the importance of early treatment in cases of insanity, and to the tendency of the disease to become chronic from neglect. A change in the law regarding the commitment of private patients to conform to the requirements in public cases is recommended.

PENNSYLVANIA:

Report of the Western Pennsylvania Hospital for the Insane, Dismont: 1879. Dr. J. A. REED.

There were in the Hospital, at date of last report, 599 patients. Admitted since, 259. Total, 858. Discharged recovered, 69. Improved, 85. Unimproved, 39. Died, 56. Total, 249. Remaining under treatment, 609.

WASHINGTON, D. C.:

Report of the Government Hospital for the Insane: 1879. Dr. W. W. GODDING.

There were in the Hospital, at date of last report, 793 patients. Admitted since, 222. Total, 1,015. Discharged recovered, 92. Improved, 37. Unimproved, 3. Died, 63. Remaining under treatment, 819.

The report contains, besides the usual statistical matter, an account of the various improvements of the past, and estimates for the expenses of the next fiscal year of the Hospital.

MARYLAND:

Report of the Mount Hope Retreat: 1879. Dr. WILLIAM H. STOKES.

There were in the Retreat, at date of last report, 340 patients. Admitted since, 148. Total, 488. Discharged recovered, 58. Improved, 22. Unimproved, 6. Died, 32. Total, 118. Remaining under treatment, 370.

Dr. Stokes presents his thirty-seventh annual report of the Retreat. In this he takes occasion, by statistical tables showing the result of treatment in acute and chronic cases of insanity, to enforce the advantages of early treatment in this form of disease. He advocates the removal of patients to asylums, as "home treatment of the insane is rarely, if ever, successful." "Restraint and close confinement within the limited range of one or two rooms are no longer necessary. He finds himself liberated from all aggravating circumstances, and in pacing the wide, airy and spacious corridors of the Institution he rejoices once more in the unrestrained use of his limbs, and no longer excluded from exercise and air he becomes docile and manageable." This view

of the subject is a truthful one, though very different from what those who advocate "home treatment" of the insane would have the people believe, when they talk of patients "being incarcerated" within the "gloomy prison walls" of an asylum, and such other clap-trap, cheap and taking with ignorant and pseudo-philanthropists. He also treats of moral treatment, to which, by continued experience, he is inclined to give increased prominence.

Report of the Maryland Hospital for the Insane: 1879. Dr. R. GUNDRY.

There were in the Hospital, at date of last report, 302 patients. Admitted since, 128. Total, 430. Discharged recovered, 31. Improved, 32. Unimproved, 12. Died, 26. Total, 101. Remaining under treatment, 329.

Dr. Gundry discusses the question of increasing the capacity of the Institution, and recommends the erection of detached blocks for the quiet, chronic classes. These could be erected as circumstances might demand. Such a block would solve the difficulty under which the Hospital now labors, from the association of patients of different color. He also advocates the establishment of schools for idiots, giving force to his arguments by the history of some cases in the Institution under his care. The financial condition of the Hospital is now on a sound basis; the debts are all paid, and there is money in the treasury.

NORTH CAROLINA:

Report of the North Carolina Insane Asylum: 1879. Dr. EUGENE GRISSOM.

There were in the Asylum, at date of last report, 266 patients. Admitted since, 44. Total, 310. Dis-

charged recovered, 14. Improved, 4. Unimproved, 2. Died, 13. Total, 33. Remaining under treatment, 277.

MISSISSIPPI:

Biennial Report of the State Lunatic Asylum: 1878-79. Dr. THOMAS J. MITCHELL.

There were in the Asylum, at date of last report, 391 patients. Admitted since, 199. Total, 590. Discharged recovered, 88. Improved, 7. Unimproved, 6. Died, 78. Eloped, 5. Not insane, 5. Total, 189. Remaining under treatment, 401.

The patients in this, as in several of the asylums of the country, especially in the South, are almost exclusively of the chronic class. Of the three hundred in the Asylum when Dr. Mitchell took charge, only some fifteen presented a fair prospect of recovery. In the admissions, preference has been given to the recent cases, for which more than fifty applications are now on file, and no accommodations exist. From the experience of the Institution, the Doctor concludes that the blacks are less susceptible to insanity than the whites, and also that they do not recover so readily. Although the advantages of the Institution are offered to both alike, there are but seventy-nine colored people in the Asylum, against 322 whites. Of the population of the State, the colored are in excess by some fifteen per cent. Of the number of applications on file for admission, but two or three are from this class of citizens. For the past two years, there have been discharged recovered, eighty-five whites to only nine colored.

KENTUCKY :

Report of the Western Kentucky Lunatic Asylum, Hopkinsville :
1879. Dr. JAMES RODMAN.

There were in the Asylum, at date of last report, 381 patients. Admitted since, 78. Total, 459. Discharged recovered, 40. Improved, 5. Unimproved, 5. Eloped, 1. Not insane, 1. Died, 31. Total, 83. Remaining under treatment, 376.

OHIO :

Report of the Cincinnati Sanitarium : 1879. Dr. W. S. CHIPLEY.

There were in the Sanitarium, at date of last report, 39 patients. Admitted since, 81. Total, 120. Discharged recovered, 29. Improved, 28. Unimproved, 9. Died, 10. Total, 76. Remaining under treatment, 44.

This Institution is one of the private class, and has been opened for patients for six years. In addition to ordinary cases of insanity, those suffering from nervous disturbances produced by the use of opium or stimulants are also received. During the year twelve of this latter class were admitted. The difficulties attending their care, and the necessity for a prolonged course of treatment in order to remove the tendency to recurrence of the opium habit are fully recognized, and some cases are given in detail.

Since the report was written, we have received news of the death of Dr. Chipley. A brief obituary notice will be found in the Summary of this JOURNAL.

Report of the Northwestern Hospital for the Insane, Toledo :
1879. Dr. J. G. NOLEN.

There were in the Asylum, at date of last report, 100 patients. Admitted since, 43. Total, 143. Dis-

charged recovered, 10. Improved, 6. Unimproved, 2. Died, 10. Total, 28. Remaining under treatment, 115.

"Of course, it is well understood, that the object of this Hospital is mainly as a retreat for incurable cases, therefore the proportion of recoveries must necessarily be small compared with other institutions of like character."

Report of the Cleveland Asylum for the Insane: 1879. Dr. J. STRONG.

There were in the Asylum, at date of last report, 600 patients. Admitted since, 233. Total, 833. Discharged recovered, 101. Improved, 51. Unimproved, 42. Died, 33. Total, 227. Remaining under treatment, 606.

Dr. Strong has written an able and interesting report largely taken up in the discussion of the two subjects of "restraint," and the harmful influence of politics in State institutions. He sustains the use of restraint, especially of the covered bed, by pointing out very clearly the advantages on physiological grounds of this over other forms employed, and refers to the senseless clamor raised against it by a few sensational writers who lack both experience and knowledge. The remarks upon the bad influence of politics in the control of such institutions is logically and fairly stated, and should lead to the abandonment of the methods now in vogue in the State of Ohio, which are doing irreparable injury by the frequent changes in the administration of the charities of the State. We can but hope that such a calm unimpassioned discussion of the subject may have a beneficial effect, and lead to a more substantial recognition of the services of the medical and other officers now devoting themselves to the care and conduct of the asylums and hospitals of the State.

Report of the Dayton Asylum for the Insane: 1879. Dr. D. A. MORSE.

There were in the Asylum, at date of last report, 567 patients. Admitted since, 174. Total, 741. Discharged recovered, 72. Improved, 26. Unimproved, 7. Died, 37. Total, 142. Remaining under treatment, 599.

The proportion of recoveries to admissions is 41.38 per cent, and the rate of mortality based upon the whole number under treatment is five per cent.

Report of the Athens Asylum for the Insane: 1879. Dr. W. H. HOLDEN.

There were in the Asylum, at date of last report, 574 patients. Admitted since, 202. Total, 776. Discharged recovered, 129. Improved, 8. Unimproved, 25. Died, 43. Total, 205. Remaining under treatment, 571.

The remarks of Dr. Holden upon the subject of insanity relate to a few of the most prominent causes of the disease, and give a rapid sketch of the improvements in treatment during the last century.

He says that, on taking charge of the Institution, 250 pounds of tobacco were consumed monthly. This with 261 men patients gives nearly one pound per month, on the supposition they all used the weed. On reducing this to one-tenth of the amount, a great improvement was noticed in the condition of the patients. Query—would it not be still further improved by another ten-fold reduction? There is a long record of work done, and improvements made in the buildings and upon the grounds. The larger part of the report is taken up by the steward's financial report, giving by the month, in full detail, a transcript from the books of the Asylum. This method, now in use in some of the Western States,

seems to be an utterly useless demand of the law, and gives the suspicion that the members of the Legislature enacting such a law must be largely interested in increasing the bills against the State for printing.

WISCONSIN:

Report of the Wisconsin Hospital for the Insane: 1879. Dr. D. F. BOUGHTON.

There were in the Asylum, at date of last report, 393 patients. Admitted since, 214. Total, 607. Discharged recovered, 37. Improved, 35. Unimproved, 11. Died, 16. Not insane, 1. Total, 100. Remaining under treatment, 507.

The report is a record of the improvements of the past year, which have resulted in remodeling and reconstructing many parts of the building. The most important among them is the preparing accommodations for 180 patients, at a small cost per capita. Wards have been refloored and refurnished, a new water system has been constructed, new coal gas works erected, a new engine and boiler have been set and new heating apparatus has been placed under a portion of the wings; fire proof stairways have been built to insure safety in case of fire, and several new day rooms add to the comforts of the wards. In the words of the report, three years ago we were behind the times in almost every essential; our appliances were small and insufficient. Now, we stand foremost in all that pertains to the means for the successful conduct of our daily work.

IOWA:

Biennial Report of the Iowa Hospital for the Insane, Independence: 1879. Dr. ALBERT REYNOLDS.

There were in the Hospital, at date of last report, 322 patients. Admitted since, 539. Total, 861. Dis-

charged recovered, 90. Improved, 164. Unimproved, 85. Died, 72. Total, 411. Remaining under treatment, 450.

The erection of an asylum for the chronic insane of the State is recommended by the Superintendent, and also one for epileptics. The attention of the Legislature is again called to the necessity of preparing accommodations for the criminal insane. The most important requirement of the Hospital is an additional water supply.

WASHINGTON TERRITORY :

Biennial Report of the Hospital for the Insane: 1879. Dr. RUFUS WILLARD.

There were in the Hospital, at date of last report, 68 patients. Admitted since, 72. Total, 140. Discharged recovered, 31. Improved, 10. Died, 20. Eloped, 4. Total, 65. Remaining under treatment, 75.

This is the second report made since the discontinuance of the contract system of care of the insane belonging to the Territory. The Trustees say that the wisdom of the adoption of the present system has been fully verified, and no longer needs an advocate. "The biennial period has been one of general prosperity to the Hospital, and of improvement to the patients." The record of repairs and of new structures, together with the financial statement, would seem to fully substantiate this assertion.

CALIFORNIA :

Biennial Report of the Insane Asylum of the State of California, at Stockton: 1878-79. Dr. G. A. SHURTLEFF.

There were in the Asylum, at date of last report, June 30, 1877, 1,195 patients. Admitted since, 325. Total,

1,520. Discharged recovered, 138. Improved, 32. Unimproved, 3. Died, 206. Eloped, 14. Total, 393. Remaining under treatment, 1,127.

There are some interesting facts contained in the statistics of the Asylum. Of the deaths twenty-five per cent have been from consumption and tubercular affections. The ratio of recoveries to the admissions, during the past year, has been fifty-five per cent. This is, however, exceptional, and explained by the comparatively small number received. From the consolidated table of nativity for the last ten years, we learn that those born in foreign countries have outnumbered the native born in the proportion of nearly two to one. An effort has been made to reduce the resident population by sending the patients from all parts of the State to the Asylum at Napa. It was hoped that in two years the number might be brought down to 1,000, and that some of the old structures, which are unfit for further use, might be demolished. This effort has not been entirely successful, and another biennial period will be required to effect it. The Asylum is now filled with chronic cases, and the per capita expense of maintenance has been reduced to forty cents per day. This includes all expenditures, salaries, provisions, repairs, etc.

Biennial Report of the Napa State Asylum for the Insane: 1878-79. DR. E. T. WILKINS.

There were in the Asylum, at date of last report, June 30, 1877, 395 patients. Admitted since, 1,048. Total, 1,443. Discharged recovered, 332. Improved, 131. Unimproved, 37. Not insane, 36. Died, 174. Eloped, 19. Total, 729. Remaining under treatment, 714.

Owing to the practice of sending the idiotic, imbecile and helpless, as well as the insane of all classes,

the Asylum is greatly overcrowded with patients. This has been carried to the point of placing two patients in a large majority of the single rooms, a condition of affairs injurious to the welfare, and too often dangerous to the life of those thus crowded together. This state of affairs also produces a constant dread of possible consequences in the minds of those who are held responsible for the care and comfort of those committed to their charge. A new water supply for the Institution has been obtained, which in quality is satisfactory, and in quantity can be readily made so by the erection of a dam. New gas works have been erected, but the pressing need which the Doctor reiterates is for more room. A project is advanced whereby provision is made for 150 more patients. In this, as in the Asylum at Stockton, two-thirds of the admissions for the year are of the foreign born element of the population. The per capita cost during the year has been forty-four cents a day.

ONTARIO :

Report of the Inspector of Asylums, Prisons and Public Charities for the Province of Ontario: 1879. HON. JOHN W. LANGMUIR, Inspector.

There are under the care of the Government Inspector, the Prisons and Reformatories, Institutions for the Deaf and Dumb, Blind, Hospitals and Charitable Institutions, and Asylums for the Insane. Of this class last named there are five, viz: Those situated in Toronto, London, Kingston, Hamilton and Orillia. They now accommodate 2,692 patients, and at the close of the official year contained 2,325 inmates, leaving 367 vacancies in the asylums at London and Hamilton. In the other asylums admission can be granted only as vacancies occur through discharge or by death. In

view of this condition, the building of another wing to the Kingston Asylum to accommodate 150 patients is recommended. With this, and the erection of a similar wing to the Asylum for Idiots at Orillia, the Inspector is of the opinion that the accommodations for both classes will be sufficient for the next ten years.

During the year 515 persons were admitted to the Asylums of the Province, of which 36 were idiots. The Inspector in analyzing the admissions to the asylums, expressly records his belief that they do not indicate any "positive increase in mental disease, or at any rate in abnormal proportion to the natural increase in the general population of the Province." "Admissions to asylums are largely governed and regulated by the character and extent of the accommodations furnished for the cure and treatment of the insane." About one-half of the admissions were merely transfers from the common gaols, under the warrant of the Lieutenant Governor. Of the 206 discharges, 135 were recovered, 47 improved and 24 unimproved. The large number of chronic cases already accumulated, and of the admissions of the same class provide but very poor material for a test of the result of asylum treatment. Ninety-two cases were discharged on probation. The number of deaths in all the asylums for insane was 112.

It appears from the returns that about one-third of the asylum population is employed in some way or another about the institutions. Following the general summary is a description, illustrated by wood-cuts, of the various institutions, and a report of the visits of the Inspector, with notes of the condition of the patients and conduct of affairs and suggestions, made by him, of changes and improvements. In the appendix, the reports of the superintendents are reproduced.

Report of the Asylum at Toronto: 1879. Dr. D. CLARK.

There were in the Asylum, at date of last report, 678 patients. Admitted since, 102. Total, 780. Discharged recovered, 34. Improved, 27. Unimproved, 9. Died, 30. Eloped, 2. Transferred, 4. Total, 106. Remaining under treatment, 674.

Of the treatment of patients in the Asylum, the following remarks occur: "The usual quantity of wine, beer and spirits has been used during the year, solely as a medicine. As a consequence, less opium, morphia, hydrate chloral have been required. During the year, only five drams of morphia, four ounces of opium and three and one-half ounces of chloral were administered internally, among an average of 765 persons, (patients and attendants)." Special attention is given to a few prominent causes of insanity, as "hereditary taints," "worry from overwork" and "intemperance." "The hereditary cause may, at a low estimate, be placed at forty-five per centum of the insane population."

The consequences of this element in the constitution of the race is portrayed in all its possible magnitude. Illustrations are given, drawn from so many sources and authors, as to show an extensive range of reading and research. Viewed in the light of the law of transmission of peculiarities of mental and physical constitution only, the outlook may be made something truly appalling. There are, however, as we think, other laws tending to the conservation of the race, which often dominate over those tending to deterioration. The improvement of the stock by intermarriage, is one of these which often diminishes or eradicates the hereditary taint of one party to the union, and gives as a resultant in subsequent generations, a new family constitution, in which the tendencies to health predominate. Again, there is the law of sterility which finally leads to the

extinction of a stock which would otherwise perpetuate tendencies to diseases of a strength which would insure their constant reproduction. As another conservative element must be mentioned, the improved conditions of life, in better hygienic surroundings, a better knowledge of the laws of inheritance, which keep many from subjecting themselves to untoward influences. It may well be questioned if too much importance is not given to heredity in cases of disease, especially of the nervous system.

The second cause or "worry from overwork," both in the term and in the illustrations, is treated rather as a moral than physical cause of insanity. Overwork, as a cause of physical debility and ill health, holds the highest rank, and by reason of this, becomes a most important factor in the causation of the disease. The statistics regarding intemperance as a cause, correspond quite closely with those of the Asylum at Utica, and truthfully represents its position among the list of causes.

Report of the Asylum for the Insane, London: 1879. Dr. R. M. BUCKE.

There were in the Asylum, at date of last report, 707 patients. Admitted since, 168. Total, 875. Discharged recovered, 64. Improved, 16. Unimproved, 8. Died, 43. Eloped, 2. Total, 133. Remaining under treatment, 742.

Dr. Bucke makes an appeal for a pathological department to be established in the Asylum, placing it upon the broad ground of duty to science, through whose discoveries and progress we have been able to do so much for the welfare of the insane. He advocates the admission of visitors to the Asylum under proper restriction, as an advantage to the Institution by

inculcating in the mind of the people correct ideas regarding the conduct of asylums, and the treatment of the insane, and further, that no injury is done the patients.

He recommends alcohol as superior to other forms of spirituous liquor, wherever such a remedy is required for medicinal use. By cutting off the employment of stimulants in cases where it has been given for other than strictly medical reasons, the amount used has been largely reduced. Six gallons of alcohol have been prescribed during the year. "In this way I have reduced alcohol to what seems to me its true position—that is, to the position of a medicine, and have excluded its use absolutely as a luxury." This position is the only tenable one that can be assumed regarding the use of stimulants, and allows of such latitude of judgment in the prescriber as would account for marked differences in the amount employed in different institutions under the varying conditions which exist in the character of the patients, their previous habits, climatic influences, &c.

In no institution of this country, so far as we know, are stimulants used for any other than medicinal purposes. We have no disposition to crack the heads of our brethren together, but with Dr. Clark favoring and Dr. Bucke opposing the use of stimulants so strenuously, are they not both in danger of mounting hobbies?

Report of the Asylum for the Insane, Kingston: 1879. Dr. W. G. METCALF.

There were in the Asylum, at date of last report, 418 patients. Admitted since, 58. Total, 476. Discharged recovered, 25. Improved, 3. Unimproved, 2. Died, 23. Total, 53. Remaining under treatment, 423.

Dr. Metcalf succeeded Dr. Dickson, who resigned in December, 1878, as Superintendent of the Asylum. His report is largely occupied in stating the necessities of the Asylum in the way of increase in capacity, and of repairs and improvements.

Report of the Asylum for the Insane, Hamilton: 1879. Dr. J. M. WALLACE.

There were in the Asylum, at date of last report, 201 patients. Admitted since, 137. Total, 338. Discharged recovered, 12. Improved, 1. Unimproved, 3. Died, 15. Eloped, 2. Total, 33. Remaining under treatment, 305.

PRINCE EDWARD'S ISLAND:

Report of the Lunatic Asylum, Charlottetown: 1879. Dr. EDWARD S. BLANCHARD.

There were in the Asylum, at date of last report, 78 patients. Admitted since, 26. Total, 104. Discharged recovered, 8. Improved, 6. Unimproved, 1. Died, 3. Total, 18. Remaining under treatment, 86.

In December, 1879, the new hospital building was first occupied. This is located four and one-half miles from the old Asylum. Much remains to be done, in the erection of necessary outbuildings, fences and the like, and in providing for lighting the buildings with gas, protection against fire, &c.

BOOK NOTICES.

Brain Work and Over-work. By H. C. WOOD, M. D., Clinical Professor of Nervous Diseases in the University of Pennsylvania, etc. Philadelphia: Presley Blakiston, 1880.

A Practical Treatise on Nervous Exhaustion, (Neurasthenia;) Its Symptoms, Nature, Sequences, Treatment. By GEORGE M. BEARD, A. M., M. D., etc. New York: William Wood & Co., 1880.

The first of these two works is one of the series of American Health Primers, being issued under the editorial supervision of Dr. W. W. Keen, of Philadelphia. The scope of the essay is very succinctly and fully set forth in its title—Brain Work and Over-work.

The opening chapter discusses the question so often propounded, "Are nervous diseases increasing?" While inclined to accept the belief that they are, Dr. Wood clearly shows that the statistics upon which we are called to base our conclusions, are, in many respects, fallacious.

In the second chapter, Dr. Wood discusses the various causes of nervous troubles, and in chapter third, the varieties and varying effects of work. In this chapter, he shows something of his ease and grace as a writer, with which the profession are so familiar, and evinces, in his consideration of the various topics touched upon, a breadth of view and a logical directness of conclusion of which we wish many other writers on similar topics were possessed. Chapters four and five treat of rest in labor and rest in recreation, and chapter six of rest in sleep. In writing of this subject, Dr. Wood states that the theory that sleep is produced by anæmia of the brain is not yet demonstrated, and "seems improbable." We are glad to have the author

thus place himself on record in this subject; we could only wish that he had more strongly protested against its acceptance, for we believe that more mischief has been done by this theory and the indiscriminate use of bromide of potassium, in accordance therewith, than by any other that has been advocated for many years. We can recall case after case of nervous exhaustion and lack of sleep in worn-out anæmic men and women, which has been increased, and in some instances, we fear, pushed to a fatal termination by the effort, by the use of bromides to produce sufficient anæmia of the brain to induce sleep. We think no belief is more common in many professional minds, than that insanity is almost invariably associated with cerebral hyperæmia, and nothing is more common than to see patients who have been, so to speak, drenched with bromides, when stimulants and full diet were plainly indicated.

The primer concludes with a chapter mainly dealing with the signs of nervous break-down. The author may congratulate himself upon his success in presenting a topic so full of interest and importance, in such a manner that it can not fail to attract and benefit the public, for whom it is intended, and while written for the popular eye and comprehension, the profession will do well to read the book and to heed its teachings, both in their own and their patients' behalf.

The work by Dr. Beard, upon a topic which has become somewhat threadbare from his frequent iteration and reiteration—neurasthenia—will doubtless attract some attention, and we have considered it in connection with Dr. Wood's essay, as having some relation, by similarity of the subjects treated.

Dr. Beard, in "Beard and Rockwell's Practical Treatise on the Medical and Surgical Uses of Electricity," New York, 1871, claims the paternity of the term neurasthenia, in the following language: "The morbid condition or state expressed by this term has long been recognized, and, to a certain degree, understood, but the special name *neurasthenia* is now, we believe, for the first time, presented to the profession." In the present work he says: "My first paper on this subject, based on the study of thirty cases, was prepared in 1868, was read before the New York Medical Association, and was published in the Boston *Medical and Surgical Journal*, April 29, 1869, and subsequently appeared in the first edition of Beard and Rockwell's 'Electricity.' This was, as far as I know, the first systematic treatise on neurasthenia ever published."

Dr. E. H. Van Deusen, Superintendent of the Michigan State Lunatic Asylum, published an article on Neurasthenia, as a supplement to his annual report for 1868, which article also appeared in pamphlet form in February, 1869, and was republished in this JOURNAL, in April, 1869. In this article Dr. Van Deusen speaks of neurasthenia more especially in its relation to insanity, but evinces as true an appreciation of its real significance in general medicine as has been shown by any subsequent writer. In speaking of the term neurasthenia, he says: "It is an *old term*, taken from the medical vocabulary, and used simply because it seemed more nearly than any other to express the character of the disorder."

We have read Dr. Beard's book somewhat carefully, and the most that we can gather from it is an illustration of how much space a small matter can be made to cover. Notwithstanding the wail which Dr. Beard sets up concerning the paucity of literature upon the

subject, the great prevalence of the disease in America, and the small amount of intelligence on the subject manifested by practitioners generally, we can not regard his application of this word as of anything like the importance he would have us. The author enters into small and minute details, in a way that is at times wearying, and, again, matters that could be made of importance are treated in a manner obscure and ambiguous.

Seventy-five out of one hundred and ninety-three pages comprising the work are given to the symptoms, and over thirty to the nature and diagnosis of neurasthenia. The balance of the work is devoted to prognosis and sequences, and to treatment and hygiene.

We give the symptoms detailed by Dr. Beard in the order mentioned, and more especially do we do this, as he says at the commencement of the chapter on symptoms that "the symptoms of neurasthenia have never yet been fully described." As given in this chapter they are: "Tenderness of the scalp," indicative of "cerebral irritation;" "dilatation, abnormal activity, or temporary inequality of the pupils;" "sick headache, or various forms of head pain;" "pain pressure, and heaviness in the back of the head, and over the vertex, and through the whole head," a symptom defined as "I can not tell how I feel;" "change in the expression of the eye;" "congestion of the conjunctiva;" "disturbances of the nerves of special sense;" "*muscae volitantes*;" "noises in the ear;" "atonic voice;" "deficient mental control;" "mental irritability;" "hopelessness;" "morbid fear." Of this latter condition Dr. Beard says: "Morbid fears are the result of various functional diseases of the nervous system, and imply a debility, a weakness, an incompetency and inadequacy, as compared with the normal state of the individual."

He tabulates the morbid fears as follows: *Astraphobia*—fear of lightning; *topophobia*—fear of places; a generic term with these sub-divisions: *Agoraphobia*—fear of open places, and *claustrophobia*—fear of closed places. *Anthropophobia*—fear of man; a generic term, including: *gynephobia*—fear of woman; *monophobia*—fear of being alone; *pathophobia*—fear of disease, usually called *hypochondriasis*; *pantaphobia*—fear of everything; *phobophobia*—fear of being afraid; and *mysophobia*—fear of contamination. Surely an interesting collection of “phobias.”

Continuing the symptoms, Dr. Beard cites: “flushing and fidgetiness;” “frequent blushing;” “insomnia;” “drowsiness;” “tenderness of the teeth and gums.” In speaking of this symptom he says: “In nervous exhaustion, whether complicated with *anæmia* or not, there may be tenderness of any part of the body, or of the whole body. Tenderness of the head is cerebral irritation; of the spine, spinal irritation; * * * of the ovaries, irritable ovaries; of the teeth, as here described, dental irritation, and so on of the womb; and the *pathology* of anyone of these *symptoms* is probably the *pathology* of all.” Following this he mentions, “nervous dyspepsia;” “deficient thirst and capacity for assimilating fluids;” “desire for stimulants and narcotics;” “abnormalities of the secretions;” “abnormal dryness of the skin, joints and mucous membranes;” “sweating hands and feet with redness;” “salivation;” “tenderness of the spine, (spinal irritation), and of the whole body, (general hyperæsthesia);” “coccyodynia;” “heaviness of the loins and limbs;” “shooting pains, simulating those of ataxy;” “podalgia, (pain in the feet);” “tremulous and variable pulse and palpitation of the heart, (irritable heart);” “local spasms of muscles, (tremors);” “dysphagia;” “con-

vulsive movements, especially on going to sleep ;” “special idiosyncrasies in regard to food, medicine and external irritants ;” “sensitiveness to changes in the weather ;” “localized peripheral numbness and hyperæsthesia ;” “a feeling of profound exhaustion, unaccompanied by positive pain ;” “ticklishness ;” “vague pains and flying neuralgias ;” “general or local itching, (pruritis) ;” “general and local chills, and flashes of heat ;” “cold feet and hands ;” “nervous chills ;” “sudden giving way of general or special functions ;” “temporary paralysis ;” “diseases of men, (involuntary emissions, partial or complete impotence, irritability of the prostatic urethra) ;” “diseases of women, (these ‘may be either the causes or effects of neurasthenia) ;” “oxalates, urates, phosphates and spermatozoa in the urine ;” “gaping and yawning ;” “appearance of youth ;” “rapid decay and irregularities of the teeth ;” “hemi-neurasthenia.”

The attempt, by a single name, to cover this multitude of sensations and morbid symptoms, many of which are without connection or even relation, and to create new forms of disease with a symptomatology based merely upon the self-observation and the imagination of the patients themselves, would seem to the intelligent practitioner to be impracticable and bound to result in failure. Such a diversity of symptoms, sensations or conditions can not properly be thus grouped together to constitute a special and so-called new disease, under any name, not even neurasthenia.

Notes on the Anatomical Relations of Uterine Structures, with Surgical Remarks and Therapeutical Suggestions. By T. H. BUCKLER, M. D. [From the *Boston Medical and Surgical Journal*.] Cambridge : 1880.

There are, in this pamphlet, several suggestive facts. The author deplors the lack of attention to the anat.

omy of the uterus and the surrounding parts, and calls attention to several contradictory views regarding its anatomico-physiological relations. The innervation of the uterus and annexes, so closely associated, apparently, with certain "nervous states" in women, is, as yet, almost a *terra incognita*, as far as any practical information is concerned. Unfortunately, uterine therapeutics have been, until quite recently, very largely comprised within the domain of uterine surgery, and while there have been many ready to cry out against meddlesome midwifery, the uterus has long needed a champion to declare against meddlesome surgery. Happily, the time seems at hand when rest and a more rational mode of treatment than the indiscriminate use of hysterotomes, dilators, caustics, pessaries, supporters, etc., is to come into vogue, and we may expect more exact ideas of the normal and morbid anatomy of the female pelvic organs, and as a natural result, more scientific modes of treatment.

Dr. Buckler takes for his subject Strangulated Veins of the Uterus, and the importance of restoring their circulation and function of drainage, thereby preventing engorgement and morbid nutrition. He points out how, through the action of the muscles of the neck and body of the uterus, this strangulation occurs. Through the action of the muscles of the neck, composed of "superimposed layers of transverse and longitudinal fibers," constituting a circular muscle, the neck is driven downwards and forward into the vagina. When the excitation calling these muscular fibers into action, sexual or otherwise, ceases, the fibers relax, and the neck recedes to its accustomed place. When this relaxation and consequent recession does not occur, but tonic contraction takes place in the circular fibers surrounding the lower portion of the body and the cervix uteri, elonga-

tion, more or less permanent, takes place. The muscular movements of the unimpregnated uterus, Dr. Buckler describes as "contractile, protrusive, retractive, and to a limited extent vermicular." In this connection he enunciates certain views advanced by Dr. Beck, of Fort Wayne, Indiana, in a paper before the American Medical Association, in 1874.

That the reader may more fully understand the mechanism of uterine engorgement, the author explains the uterine circulation briefly, as follows:

"The uterine artery, having its origin usually from the ischiatic, but sometimes from the pudic, takes its course with its accompanying vein between the folds of the broad ligament to the uterus, into the lateral walls of which its branches are distributed. Now the point I wish to make, and desire the reader to note is, that some of these branches with accompanying veins for the return blood pass through and underneath the bands of the constrictor cervicis uteri muscle, which, operated on by various influences, contracts transiently, rigidly, and often permanently, so as to impede to a greater or less extent, and sometimes obstruct entirely, the return blood by the veins. And not only are the veins compressed, but also lymphatics and branches of the sympathetic from the hypogastric plexus, and we all know how paresis of the vaso-motor nerves robs the capillary vessels of their vital powers of contraction, thereby rendering them prone to dilatation and congestion."

* * * * *

"A circular muscle arranged around the lower third and the neck of the uterus like an elastic garter, particularly liable to irritation and subsequent contraction, having direct power to impede the venous flow, and yet too weak to control the arterial circulation, becomes, by arresting the return blood and backing it on the womb, the factor of engorgements in the neck and body of the uterus, and as a consequence is the cause of procidentia, retroversion, retroflexion, and anteversion, according to the part of the womb which is weighed by the hæmostatic engorgement. If increased bulk and consequently weight is brought about in the neck, the uterus is liable to be dragged down, like a fisher's cork with lead attached, into the cavity of the pelvis; but if the summit of the posterior, anterior, or lateral walls be the seat of the congestion or infarction and increased bulk, then the tendency,

hurried by exciting causes, is to topple backwards, forwards, or to either side, according as the back, anterior, or lateral walls contain the greater weight of engorged matter. In this way, just as the fisher's cork falls in one direction or the other, as weight is added to a particular side, retroversion, anteversion, or lateral declension is brought about. The normal position of the womb in health is that of anteversion."

These extracts represent, in brief, Dr. Buckler's opinions concerning some of the most troublesome uterine disorders—engorgement, hæmorrhages, displacement and enlargement, and they may be extended to include other conditions naturally resulting from these.

"The treatment advocated in most cases consists in the simple expedient of dilating the cervical canal, so as to overcome contraction of the constrictor cervicis uteri muscle which had narrowed or closed it, and to keep the dilator applied sufficiently long to fatigue the muscular fibres, thereby removing pressure from the veins of the neck and lower third of the body, setting free the circulation and renewing, or rather restoring, their office of drainage."

This simple treatment, he claims, is used with various modifications in most of the ordinary uterine diseases, as stenosis, versions and flexions, etc. We are somewhat surprised, after reading the almost radical simplicity advised, to find the author speaking so highly of pessaries, which we had come to regard, except in rare instances, as a piece of machinery generally useless when other proper means were employed, and frequently mischievous.

We can not agree with the author in saying that ovariectomy requires "but moderate skill, and attention to details, and has been most successfully made by men of little surgical experience." Enuclation, the greatest addition to the operation yet suggested, was first performed by Prof. J. F. Miner, a surgeon of recognized skill and discernment. "Moderate" attention to details will almost inevitably be followed by disastrous results. No

one should undertake the operation except after long practical experience in general surgery and special clinical instruction in ovariectomy. In closing our observations upon a suggestive essay, we would call attention to the "glove stretcher" dilator introduced, and so long and successfully used by Prof. James P. White, of Buffalo. In certain cases it seems to possess advantages far beyond the ordinary bougie.

Man's Moral Nature. An Essay by RICHARD MAURICE BUCKE, M. D., Medical Superintendent of the Asylum for the Insane, London, Ontario. New York: G. P. Putnam's Sons, 1879.

Dr. Bucke modestly declares, in his advertisement, that he does not consider any of the conclusions of this book as "absolute or even certain;" but that it is "simply a record of the way things look to him." It contains a *thought*, which, he says, "grew" in him of itself, he having "nothing to do with it, and no control over it." That thought, as we gather, is, in brief, that the great sympathetic nerve system is the "physical basis" of man's whole moral nature, just as the cerebro-spinal nerve system is the physical basis of man's active and mental faculties.

Now, this proposition of itself is not an illegitimate subject of discussion among medical men, and it is very well and plausibly treated in the third chapter of the book under notice. Here the author treats in an interesting manner of the functions of the great sympathetic, and compares them with those of the cerebro-spinal nerves in a way to give to his proposition the best probability. We certainly have no objection to any attempt to show such correlation as is here claimed between the sympathetic nervous centers and the animal passions and emotions of the human being, as well as the mere involuntary feelings of joy, grief, fear,

affection, etc., all of which may be shared by the lower orders of creation, without any reference to the "moral nature" at all.

For many pages before coming to his main proposition, Dr. Bucke discusses the "moral nature and its limits." This he seems to resolve into "four simple leading elements—love, hate, faith, fear." It would, perhaps, be unfair to quote single sentences, but we can not but observe that this whole chapter, in its analysis, hardly rises above what we usually call the physical *temperament* of a person. What has all this to do with the moral nature of man? How does it account for the conscience, sense of right and wrong, recognition of the mutual relations of creature and creator, ruled and rulers, offspring and parents, debtor and creditor, which are conspicuously absent in the other orders of animal creation? Or, would Dr. Bucke say with Darwin that a dog is a moral being, because he *ought* to retrieve when he is taught to do so, just as much as a gun *ought* to carry straight that is made for that purpose? But nobody is deceived by this metaphorical use of moral terms. Even such a lofty word as *faith* is, by Dr. Bucke, resolved into the mere feeling of confidence or courage, thus stripping it of everything except its pure animal or emotional character, while it is expressly declared to have nothing to do with *belief*, because that implies the co-ordinate action of the intellectual powers. There is to us something very crude and confused in this whole discussion. His "faith" is the superstition of savages, as well as the intelligent confession of mystery in the civilized man. Dr. Bucke says: "the gods of savages are demons; the God of the better samples (*sic*) of Christians is a being in whom goodness greatly preponderates over evil." One would suppose he was thinking of the Persian duality. But does Dr. Bucke

mean to charge *any* Christians, so-called in these days, with such a conception of God as he describes? It is simply a contradiction in terms. Evil implies *defect*, short-coming, loss—ideas incompatible with the very definition of God. But if he maintains that a perfect being could not create rational natures, *capable* of short-coming or transgressing, that would be to say that he could not create a *moral nature*; for there is no moral quality in actions compelled by natural law; no moral quality in the secretion of bile; and we fear we shall have to say, no moral quality in the tears of grief, the shriek of fear, the growl of anger, or the tail-wagging of glad affection, considered simply as manifestations of the influence of the great sympathetic. We have heard an anecdote of the late Dr. Backus, a sort of American Dr. Johnson, who begged pardon of his congregation for weeping in the pulpit on a certain occasion, assuring them at the same time that “there was no *religion* in it.” Surely it must be some such confusion of ideas that makes Dr. Bucke express himself in this same chapter as follows: “In the front ranks of humanity, at present, and on an average, the Christian belief represents a lower phase of faith than exists in the minds of those who reject this doctrine.” One is somewhat puzzled to think here whether he can have in mind that superior faith, utterly divorced from knowledge or belief, which, of course, is in its perfection among savages, taken in the sense of utter credence or credulity; or whether he means that Christian belief is a “lower phase of faith,” because it is not so apt to fall into its latest alternatives and substitutes, the thaumaturgics of spiritualism, electro-biology, etc. The passage is perhaps not quite so clear or frank as might be desired. We are sorry to observe here and there a suspicion of scepticism, whenever he has occasion to

refer to Christianity, or to its Scriptures, though he must be aware that his theory and his treatment of the great sympathetic must require a considerable amount of the charity that "believeth all things" to accept it.

His development of the moral nature he, of course, makes to depend on physical progress by natural selection, sexual selection, social life, art and religion. "Superior moral natures" he claims to be born from time to time, which lift up their generation one step higher. We are hardly concerned to follow out this train of thought, familiar enough to readers of modern scientists. But some of the writer's statements of fact may be open to grave question. We refer to such as the "superior moral nature" of the living generation of Jews; their fecundity and longevity; the "superior moral nature" of tall men, as contrasted with short; of fat men, as compared with lean, etc. There is much of this sort of thing, of fanciful rather than scientific character.

Index Medicus—A Monthly Classified Record of Current Medical Literature of the World. Compiled under the supervision of Dr. JOHN S. BILLINGS, Surgeon, U. S. Army, and Dr. ROBERT FLETCHER, M. R. C. S., England. New York: F. Leypoldt, 13 and 15 Park Row.

We desire to call the attention of our readers to this really valuable, and to all students and investigators, invaluable journal. It is, as its name imports, a classified index of the medical literature of the world. All the important articles which appear month by month are given under the appropriate department, first the author's name, then the full title of the article, the name of the journal, the year, volume and page. Thus far it has been published at a pecuniary loss to the proprietor. Owing to the importance of the work to

the profession. and at the urgent request of those who have appreciated this fact, it is continued another year, in the hope of an increased subscription list, which will, at least, make it self-supporting.

Thirteenth Annual Report of the State Board of Charities.
Transmitted to the Legislature, February 5, 1879.

The Board report but one change in the State institutions for the insane, viz: the conversion of the State Inebriate Asylum, at Binghamton, to an asylum for the chronic insane. When completed, it will accommodate 300 of this class. This, with the erection of another group at Willard for 250 patients, will provide for 550 out of the 755 now in county asylums, which have not received exemption from the operation of the Willard law. As a further provision for this class, the Board recommend the erection of cheap buildings, in connection with the Asylum at Binghamton. They deem it important for the State to provide for all of this class.

Of the numbers of the insane in the State, the Board report an increase of 327, and a total of 9,015 in the institutions of the State. The annual average increase of the insane, since 1871, is 9.89 per cent; while the annual increase of population during the same time has been but 1.67 per cent. This does not include the insane under private care in the families of citizens. In 1871, by special inquiry, the Board found the number of this class of the insane, to be 1,582. Now, assuming that there has been no change in the number, there is a grand total of 10,597 insane in the State.

Several papers are appended to the report. One of these, on "Non-Resident and Alien Paupers," gives the proceedings of a conference between representatives of the Massachusetts State Board of Health, Lunacy and Charity, and the State Board of Charities of New York.

This was substantially a protest of the New York Board against the action of the Massachusetts Board, in sending into the former State such paupers as they (the Massachusetts Board) claimed were non-resident and alien. This conference developed the fact that New York was made the grand dumping place for large numbers of the insane, idiotic, sick and helpless people, which Massachusetts desired to be rid of. The principles announced by the Massachusetts Board, as governing their action in this matter, are creditable neither to the philanthropy, generosity nor humanity of a State, which, from its age, its wealth and position has long been looked upon, and may we not say claimed to be a teacher of the most advanced sentiments of charity and love for humanity. The theory that the State will support only such of the dependent classes as carry the native blood of Massachusetts in its veins, or have had a five years' continuous residence in the State, is a convenient one to enable it to throw the great burden of the care of the largest part of the dependent people found in its border upon the States in proximity thereto. To see the full operation of such laws, and how unjust they are to the State of New York, it is only necessary to record the statistics as furnished by the Massachusetts Board. During the years from 1870 to 1878 there were sent into the State of New York, by the Massachusetts Board, 7,505 individuals of the dependent class.

Atlas of Human Anatomy. Containing 180 large plates, arranged according to Drs. Oesterreicher and Ertl, from three original designs from nature, and those of the greatest anatomists of modern times, with full and explanatory texts. By J. A. JEANÇON, M. D. A. E. Wilde & Co., Publishers, Cincinnati, Ohio.

The fasciculus before us is of large quarto size, and contains five plates, as samples of the character of

the work. They are well executed lithographs of remarkable clearness and sharpness. They are accurate in the relations of parts, and in detail. If the rest of the work is equal to the samples, in correctness and perfection of drawing, they will leave little to be desired. The explanatory text is full, and the figures so distinct, as to make reference easy. We congratulate the publishers on the success which has crowned their efforts to produce such a reliable and accurate atlas of anatomy as this promises to be.

SUMMARY.

—Dr. H. H. Richardson, of Philadelphia, so long and favorably known as the Superintendent of the insane department of Blockley Hospital, has been elected to the same position in the new Hospital for the Insane, at Warren, Pa.

—Dr. James G. McBride, formerly Assistant Physician to the Northern Hospital of Wisconsin, has been elected Superintendent of the new County Asylum for the Insane, located at Milwaukee, Wis.

FIRE IN THE KANSAS STATE ASYLUM.—On the 8th of March the administrative building of the Kansas State Asylum, at Ossawatimie, was completely destroyed by fire. The wings occupied by the patients were saved. No loss of life, or serious injury to anyone occurred. The damage is estimated at about \$40,000.

—We are pained to record the death of Dr. Edward R. Hun, of Albany. This occurred on the 14th of

March, 1880, at Stamford, Conn., at the age of 33 years. His health had been gradually failing for some time, and he had withdrawn from active labor in his profession. Under the advice of his physician, and to insure the most complete rest and relief from care, he had temporarily taken up his residence in the quiet village where he died. Dr. Hun possessed, in a rare degree, those qualities which achieve success. He was active and energetic, and had unusual powers of endurance of mental or bodily labor and fatigue. He was quick to learn, and tenacious to retain, and manifested a maturity of judgment beyond his years. United to these were those genial and companionable qualities which endeared him to his friends, and made him conspicuous among them. He had enjoyed the best educational advantages, having been graduated from Harvard College in the class of 1863, and subsequently from the medical department of Columbia College, in New York, in 1866. He afterwards visited Europe, and continued his studies in London and Paris. Upon his return he entered upon the practice of his profession in Albany. In 1868 he was appointed Special Pathologist to the Utica Asylum, the first position of the kind established in connection with any institution for the insane in this country. He continued to perform the duties of this office with credit and satisfaction till April, 1873, when his professional engagements led to his resignation. In 1875 he was elected to the chair of nervous diseases in the Albany Medical College, which position he held till the time of his death. To the readers of this JOURNAL he is known by the papers contributed, the translation of "Bouchard's Secondary Degenerations of the Spinal Cord," "Pulse of the Insane," and "Hæmatoma Auris." Dr. Hun's career, though short, was a brilliant one, and gave promise of such an abundant harvest as

is the crowning glory of a life spent in devotion to a chosen field of action.

DEATH OF DR. W. S. CHIPLEY.—Dr. Chipley, the Superintendent of the Sanitarium, at College Hill, Ohio, died on the 11th of February last. He was born at Lexington, Kentucky, in 1811, and was graduated from the medical department of the Transylvania University, in 1832, and subsequently engaged in the practice of his profession in Georgia. Here he became interested in politics, and was a pronounced advocate of the election of Henry Clay to the Presidency. Want of success in this field induced him to devote himself to his profession, and he returned to Lexington, where he soon obtained a large practice. This was subsequently resigned for the Superintendency of the Asylum located in that place. It was in this position, which he held for many years, that he made the enviable reputation which he enjoyed during the remainder of his life, and left untarnished to his family and to the specialty in which he was so long and favorably known. He at one time occupied the chair of *Materia Medica* in the University of which he was a graduate. In the prosecution of his studies in the specialty he visited the asylums of England and France, and, profiting by his observations of those institutions, he made many important changes in the Asylum with which he was connected. After leaving the Eastern Asylum he opened a private institution, for the treatment of nervous disorders, which he conducted till he received the appointment as Superintendent of the Sanitarium. Here, in the midst of his duties, he was stricken down by a disease from which he had long suffered—dilatation and valvular insufficiency of the heart. We shall not here attempt any analysis of his life and character,

as this sad duty will devolve upon some of his professional brethren, appointed by the Association of Superintendents, of which he was an honored member.

APPOINTMENT OF DR. EVERTS.—Dr. Orpheus Everts, late Superintendent of the Indiana Hospital for the Insane, has been appointed to the Superintendency of the Sanitarium, made vacant by the death of Dr. Chipley. Dr. Everts has been identified with the specialty for some years, and has won for himself an honorable position among the superintendents of asylums. He has had an extensive and varied experience in both the medical and administrative duties, as the head of one of the large asylums of the country. We congratulate the Trustees on securing the services of a man so peculiarly fitted by past labor and study in the field of insanity, as Dr. Everts. He will, we doubt not, sustain the reputation which the Institution attained under the late lamented Dr. Chipley.

—In the appendix to the Report of the Select Committee on Lunacy Law of Great Britain, 1877, there is a communication from Ex-Chancery Visitor, Dr. Bucknill, and two of the present Visitors, Dr. C. Lockhart Robertson and Dr. J. Crichton Browne, stating that there were 676 lunatics, wards of the Court of Chancery, then living, “scattered in the several private asylums and registered hospitals in England and Wales, for whose maintenance, upwards of £100,000 a year is spent, under the sanction of the Court. These are visited once a year by the Lord Chancellor’s Visitors in Lunacy, who have, however, no voice in the selection of the asylum, nor do they exercise any control over its conduct and management.” They suggest “that three State asylums be provided for the care and treatment of the Chancery

lunatics, each with accommodation for 200 patients." Dr. Robertson then states, that in that year, there were also 336 of this class in private dwellings, and he adds this note, which shows how favorably public institutions are there held. "Of the English private patients, 48.6 per cent were in public, and 45.5 per cent in private asylums; while of the Scotch private patients, 77.8 were in public, and 16 per cent in private asylums."

—The Thirty-Fourth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, will be held at the Continental Hotel, in the City of Philadelphia, Pa., commencing at 10 A. M., on Tuesday, May 25th, 1880.

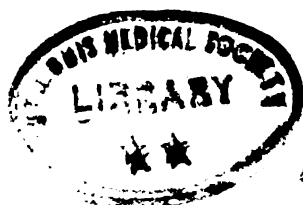
Resolved, That the Secretary, when giving notice of the time and place of the next meeting, be requested to urge on the members the importance of prompt attention at the organization, and of remaining with the Association till the close of the session.

By standing resolution, the Trustees of the several institutions are invited to attend the meetings of the Association.

When an Assistant Physician represents an Institution, a notice stating that fact, should be sent to the Secretary.

JOHN CURWEN, M. D., *Secretary.*

HARRISBURG, PA., March 16, 1880.





THE

AMERICAN

JOURNAL OF INSANITY.

EDITED BY THE

MEDICAL OFFICERS OF THE NEW YORK STATE
LUNATIC ASYLUM.

VOL. XXXVII.

The care of the human mind is the most noble branch of medicine.—GROTIUS.

STATE LUNATIC ASYLUM.

UTICA, NEW YORK.

1880-91.



**ROBERTS & CO., PRINTERS,
HERALD OFFICE, UTICA.**

INDEX TO VOL. XXXVII.

	PAGE.
Acute and Chronic Cases to be Treated Together,.....	91
Administrative Duties of Medical Superintendents,.....	352
A Large Brain,.....	238
Alimentation, Dr. Régis on Forced,.....	448
Andrews, Dr. J. B., Appointment of,.....	111
Andrews, Dr. J. B., and the New State Asylum at Buffalo,...	353
Appointment of Dr. J. B. Andrews,.....	111
Appointment of Dr. T. S. Armstrong,.....	111
Armstrong, Dr. T. S., Appointment of,.....	111
Artificial Feeding in Bulbar Paralysis,....	88
Association of Medical Superintendents, Proceedings of,....	113
Asylums, American, Notices of Reports,.....	217, 455
Asylum Fires,.....	477
Asylums for Insane Criminals,.....	473
Asylums for the Insane, State Comptroller on,....	476
Auditory Vertigo,.....	85
Bagg, M. M., M. D. Case of Extra and Intra-Cranial Carcinoma,.....	392
Beard, Dr. On Insanity,.....	229
Bernard, Professor Claude, Memorial to,.....	238

BOOK NOTICES:

Aphorisms in Fracture. Richard O. Cowling, M. D.,...	454
A Practical Treatise on Nasal Catarrh. Beverley Robinson, M. D.,.....	343
A Practical Treatise on Sea-Sickness; its Symptoms, Nature and Treatment. George M. Beard, A. M., M. D.,	227
A Treatise on Common Forms of Functional Disease. L. Putzel, M. D.,.....	451
A Treatise on Diphtheria. A. Jacobi, M. D.,.....	343
A Treatise on Foreign Bodies in Surgical Practice. Dr. Alfred Poulet,.....	109
A Treatise on Therapeutics. Drs. Trousseau and H. Pidoux,.....	110
Compendium der Psychiatrie für Praktische Aerzte und Studierende. Dr. J. Weiss. (Compendium of Psychiatry for Practical Physicians and Students),....	340

Diagnosis and Treatment of Ear Diseases. Albert H. Buck, M. D.,.....	452
Diseases of the Pharynx, Larynx and Trachea. Morell Mackenzie, M. D.,....	343
General Paralysis of the Insane. Julius Mickle, M. D., M. R. C. P., London,.....	103
Handbuch der Geisteskrankheiten. Dr. Heinr. Schüle. (Handbook of Mental Diseases),.....	339
How a Person Threatened or Afflicted with Bright's Disease Ought to Live. Joseph F. Edwards, M. D.,...	454
Hygienic and Sanative Measures for Chronic Catarrh, etc. Thomas F. Rumbold, M. D.,.....	343
Medical Heresies: Historically Considered. Gonzaloo C. Smythe, A. M., M. D.,.....	453
On the Construction, Organization and General Arrangements of Hospitals for the Insane, with some Remarks on Insanity and its Treatment. Thomas S. Kirkbride, M. D., LL. D.,.....	348
Surgery in the Pennsylvania Hospital. Drs. Thomas G. Morton and William Hunt,....	226
The Practitioner's Reference Book. R. J. Dunglison, A. M., M. D.,.....	351
The Venereal Diseases; including Stricture of the Male Urethra. E. L. Keyes, A. M., M. D.,.....	224
Thirty-Third Report of the Commissioners in Lunacy (England) to the Lord Chancellor,.....	319
Topische Diagnose der Gehirnkrankheiten, eine Klinische Studie. Dr. Hermann Nothnagel. (Topical Diagnosis of Diseases of the Brain),.....	334
Brain, A Large,.....	238
Brain Function, Obliteration and Renewal of. Orpheus Everts, M. D.,.....	236
Brain in Insanity, Condition of. Theodore Deecke,	361
Brain Lesions and Functional Results. Daniel Clark, M. D.,	241
Brain, Re-Education of the Adult,.....	81
Brain, Weight of, and its Component Parts in the Insane,....	86
Bromides, Action of, in Epilepsy,.....	445
Bucknill, Dr. Care and Legal Control of the Insane,.....	36
Bulbar Paralysis, Artificial Feeding in,.....	88
Carcinoma, Case of Extra and Intra-Cranial. M. M. Baggs, M. D.,.....	392
Carriell, Dr. H. F. Re-appointment of,.....	239

Catatonia,	62
Cerebral Temperature,	111
Changes in the Ganglion Cells of the Grey Cortex of the Brain in Acute Delirium, and their Relation to those in Acute Insanity and in Dementia. Theodore Deecke,....	285
Christian, M. Non-Restraint.....	307
Clark, Daniel, M. D. Brain Lesions and Functional Results,	241
Classification of Mental Diseases,.....	62
Claustrophobia,	63
Clouston, Dr. Puberty and Adolescence, Medico-Psycho- logically Considered,.....	443
Condition of the Brain in Insanity. Theodore Deecke,....	361
Cost of Lunacy Supervision in Great Britain,	111
Cysticercus of the Brain,	69
Deecke, Theodore. Changes in the Ganglion Cells of the Grey Cortex of the Brain in Acute Delirium, and their Relation to those in Acute Insanity and in Dementia. Part I,	285
Deecke, Theodore. Condition of the Brain in Insanity,	361
Deecke, Theodore. Structure of the Vessels of the Nervous Centers in Health and their Changes in Disease. Part VI,	273
Divorce, Insanity as a Motive of,	61
Dix, Miss, Tribute to,.....	239
Echeverria, M. G., M. D. Feigned Epilepsy,	317
Echeverria, M. G., M. D. Marriage and Hereditariness of Epileptics,	177
Election of Dr. John P. Gray, as Associate Member of the Medico-Psychological Society, of Paris,	352
Epilepsy, Action of Bromides in,.....	445
Epilepsy, Feigned. M. G. Echeverria, M. D.,.....	317
Epilepsy, Feigned. Case of James Clegg, <i>alias</i> James Lee, the "Dummy Chucker." Carlos F. MacDonald, M. D.,	1
Epileptics, Marriage and Hereditariness of. M. G. Echeverria, M. D.,.....	177
Epilepsy, Treatment of,	446
Everts, Orpheus, M. D. Obliteration and Renewal of Brain Function,.....	236
Facial Hairy Growths Among Insane Women, Significance of,	442
Feigned Epilepsy. Case of James Clegg, <i>alias</i> James Lee, the "Dummy Chucker." Carlos F. MacDonald, M. D.,	1
Feigned Epilepsy. M. G. Echeverria, M. D.,	317

Fires, Asylum,	477
Ganglion Cells of the Grey Cortex of the Brain, Changes in, in Acute Delirium, and their Relation to those in Acute Insanity and in Dementia. Theodore Deecke,.....	285
General Paralysis in an Imbecile,.....	449
General Paralysis of Rapid Course,.....	69
Gray, Dr. John P. Election of, as Associate Member of the Medico-Psychological Society, of Paris,	352
Hæmatoma Auris,	68
Hallucinations, Professor Tamburini on,	447
Hawthorne, J. C., M. D. Obituary of,.....	483
Hurd, H. M., M. D. Recent Judicial Decisions in Michigan Relative to Insanity,.....	23
Hydrocephalus, Case of. Professor A. Tamburini,.....	397
Hyosciamia, Dr. C. Reinhard on,.....	449
Hystero-Epilepsy, Ovarian Compression in,	444
Insane, Care and Legal Control of the. Dr. Bucknill,.....	36
Insane Asylums, State Comptroller on,.....	476
Insane Criminals, Asylums for,.....	473
Insane, On Certain Acute Secondary Visceral Lesions in the, .	79
Insanity and Its Treatment, Training Necessary for a Real Knowledge of,.....	355
Insanity and Uterine Disease,.....	443
Insanity as a Motive of Divorce,.....	61
Insanity, Causal Relation Nerve Stimulants Sustain to. D. R. Wallace, M. D.,.....	300
Insanity, Condition of the Brain in. Theodore Deecke,.....	361
Insanity, Judicial Decisions in Michigan Relative to. H. M. Hurd, M. D.,.....	23
Insanity, On. Dr. Beard,.....	229
International Medical Congress, 1881,.....	354
Journals, New,.....	478
Judicial Decisions in Michigan Relative to Insanity. H. M. Hurd, M. D.,.....	23
Lindsay, William Lauder, M. D., F. R. S. E., F. L. S. Obit- uary of,	358
Longitudinal Sinus, Case of Auctothonous Thrombosis. Dr. H. Schüle,.....	423
Long-Lived Lunatic,.....	445
Lunacy Supervision in Great Britain, Cost of,.....	111

MacDonald, Carlos F., M. D. Feigned Epilepsy. Case of James Clegg, <i>alias</i> James Lee, the "Dummy Chucker,"	1
MacDonald, Dr. Carlos F. Resignation of,.....	111
Marriage and Hereditariness of Epileptics. M. G. Echeverria, M. D.,.....	177
May, Dr. Calvin S. Resignation of,	239
Medical Superintendents, Administrative Duties of, ..	352
Medulla and Spinal Cord, Model for Illustrating the Relation of Nerve Fibres to the,.....	356
Melancholia and its Treatment, Secondary Symptomatic Element of,	64
Memorial to Professor Claude Bernard,.....	238
Mental Diseases, Classification of,.....	62
Mental Medicine, Report of Transactions of the Section on, at International Congress of Amsterdam,.....	56
Mental Medicine, Retrospect of,	73
Model for Illustrating the Relation of Nerve Fibres to the Medulla and Spinal Cord,	356
Narcolepsia. Joseph Workman, M. D.,.....	294
Neuritis and Peri-Neuritis of some of the Cranial Nerves, Observations on,.....	84
New Journals,.....	478
Non-Restraint, On. M. Christian,.....	307
Obituary of J. C. Hawthorne, M. D.,.....	483
Obituary of William Lauder Lindsay, M. D., F. R. S. E., F. L. S.,.....	358
Obituary of Isaac Ray, M. D., LL. D.,....	480
Obliteration and Renewal of Brain Function. Orpheus Everts, M. D.,.....	236
Observations of Neuritis and Peri-neuritis of Some of the Cranial Nerves,.....	84
Observations on the Cranium and Brain of a Hydrocephalic Patient aged Nineteen Years. Professor A. Tamburini, ..	397
On Certain Acute Secondary Visceral Lesions in the Insane, ..	79
Ovarian Compression in Hystero-Epilepsy,.....	444
Prevention of Bromic Acne,.....	445
Proceedings of the Association of Medical Superintendents, ..	113
Puberty and Adolescence, Medico-Psychologically Considered. Dr. Clouston,.....	443
Ray, Isaac, M. D., LL. D. Obituary of,.....	480

Re-Appointment of Dr. H. F. Carriel,	239
Re-Education of the Adult Brain,	81
Remarks on Epilepsy. (From the German of Dr. L. Witkowski),	96
Reports of American Asylums, 1879-80. Notices of,	217, 455
Report of the Inspectors General of Insane Asylums (France) to the Minister of the Interior,	70
Report of the Transactions of the Section of Mental Medicine, at the Medical Congress of Amsterdam,	56
Resignation of Dr. Carlos F. MacDonald,	111
Resignation of Dr. Calvin S. May,	239
Retrospect of Mental Medicine,	73
School for Feeble-Minded Youth,	478
Schüle, Dr. H. Case of Auctothonous Thrombosis of the Longitudinal Sinus,	423
Secondary Symptomatic Element of Melancholia and its Treatment,	64
Stimulants, Nerve, Causal Relation of, to Insanity. D. R. Wallace, M. D.,	300
Structure of the Vessels of the Nervous Centers in Health, and their Changes in Disease. Part VI. Theodore Deecke,	273
Tamburini, Prof. A. Observations on the Cranium and Brain of a Hydrocephalic Patient aged Nineteen,	397
Tamburini, Prof. A., on Hallucinations,	447
Thrombosis, Case of, of Longitudinal Sinus. Dr. H. Schüle,	423
Training Necessary for a Real Knowledge of Insanity and its Treatment,	355
Tribute to Miss Dix,	239
Unlocked Doors in Asylums,	93
University of Pennsylvania,	478
Vessels of the Nervous Centers, in Health, and their Changes in Disease. Part VI. Theodore Deecke,	273
Vomiting in Connection with Cerebral Disease,	90
Wallace, D. R., M. D., Causal Relation Nerve Stimulants Sustain to Insanity,	300
Weight of the Brain and Its Component Parts in the Insane,	86
Women <i>versus</i> Special Brain-Work,	450
Workman, Joseph, M. D. Narcolepsia,	294

AMERICAN JOURNAL OF INSANITY, FOR JULY, 1880.

FEIGNED EPILEPSY.*

CASE OF JAMES CLEGG, *alias* JAMES LEE, THE "DUMMY CHUCKER."

BY CARLOS F. MAC DONALD, M. D.,

Superintendent of the Binghamton Asylum for the Insane, late Superintendent of the State Asylum for Insane Criminals, at Auburn, N. Y.

"Disease," says Gavin, "has been simulated in every age and by all classes of society. The monarch, the mendicant, the unhappy slave, the proud warrior, the lofty statesman, even the minister of religion, as well as the condemned malefactor, and 'boy creeping like snail unwillingly to school,' have sought to disguise their purposes, or to obtain their desires, by feigning mental or bodily infirmities."

The first recorded instance of feigned illness occurred, according to the Book of Genesis, in the person of Jacob's favorite wife, Rachel, and for the purpose of concealing the stolen idols of Laban. Scriptural authority also instances other attempts at simulation of disease, all of which are familiar to the classical reader; while the history of medicine is replete with instances of more or less successful counterfeiting of almost every variety of disease, from the simplest and most benign to those of a most loathsome character, even of death itself.

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Philadelphia, May, 1880.

Among the long list of maladies that have been successfully imitated, that of epilepsy probably ranks first as regards frequency. The reason why epilepsy is selected more frequently than other diseases, which at first sight would appear to be less difficult of imitation, is apparent from the fact that, in the former, the mode of onset of its prominent and characteristic feature, namely, the "fit," or convulsion, offers great advantages to the impostor. The well-marked and popularly known suddenness with which the paroxysms of ordinary epilepsy occur, together with their usually short duration, render unnecessary the precautions that must be observed in order to successfully simulate most other maladies. Other reasons, which undoubtedly induce malingerers to feign epilepsy, in preference to other diseases, are, that the victim of this disease always commands the sympathy of the multitude; (Fortunatus Fidelis states that feigned epilepsy was of frequent occurrence in the sixteenth century, which he ascribes to a popular belief that persons so afflicted were under the influence of evil spirits, and thereby became the object of peculiar compassion,*) that he is usually regarded as more or less irresponsible for his conduct; that the attacks or seizures, can be assumed at the pleasure or convenience of the individual; and, finally, that it is quite consistent with the nature of the disorder to be apparently well during the intervals, "which may be longer or shorter at the impostor's pleasure."

Writers upon epilepsy, in our own country, as a rule, devote but little space to the subject of simulation, while some of them do not even mention it. Echeverria, in his classical treatise on epilepsy, makes no allusion to simulation. Flint, senior, Bauduy, Allan McLane Hamilton and other distinguished American

* Gavin on Feigned and Factitious Diseases.

writers on epilepsy, refer only cursorily to feigned epilepsy. The same is true, also, of Beck, Wharton and Stillé, Ordonaux and other writers on Medical Jurisprudence. Doctor Ray, in his valuable work on Medical Jurisprudence of Insanity, discusses "Epilepsy and its Legal Consequences," in a space of thirteen pages, but makes no mention of simulation of the disorder. Nor has a single case of feigned epilepsy been reported in the AMERICAN JOURNAL OF INSANITY during the thirty-six years of its publication. In fact, so far as I am aware, no writer has reported a case occurring in this country.

From these facts may we not reasonably conclude that feigned epilepsy is comparatively rare in America? Surely, if attempts at simulation of this disease were even of moderately frequent occurrence here, the fact could hardly have escaped the attention of *all* of the writers mentioned. Besides, my own observation and experience leads me to conclude that impostors in this field are confined—since the late war at least, almost exclusively to the criminal classes; whereas, in Europe, if we may judge from the literature of that country upon the subject, cases are not only much more frequent among the criminal classes, but are found among soldiers, sailors and beggars—the latter being a more numerous class abroad, and in some instances the deception has been practiced by females. Sanctorellus, a physician of the sixteenth century states, that he convicted a young woman of feigning this disease. A writer in the *Journal of Mental Science*, (British), for October, 1865, says: "A 'fitty pauper' is well known in certain parishes. And while some of the ravages of epilepsy, as an epidemic, occupy a large space in history, it is encountered endemically upon certain highways and byways and near the doors of charitable lords of the

manor. It is a profession, a source of revenue, an appeal to sympathy. You will suppose that the simulation of epilepsy must be difficult, infrequent, necessitate adjuncts and consequences which would frustrate the object in view. It is, however, a heritage of beggars; and one, detected in a well got up fit, confessed that he had been taught the trick by his father, who had carefully studied the symptoms in a book, and had practiced the art successfully for twenty-eight years." In the same *Journal*, for July, 1879, it is stated, that of fifty-two epileptics, (criminals), admitted to the Insane Quarter at Gallion, France, twelve were simulators. Says Esquirol, "Epilepsy is feigned to avoid a thing which may be repugnant. Our young conscripts had recourse to this means. I knew an old officer who had been brought before the revolutionary tribunal who feigned an attack of epilepsy and was saved. School children, in order to avoid attending school, have also deceived their parents." Trousseau remarks that, "army doctors will tell you that individuals often feign epilepsy in order to be exempted from military service." Balfour Browne tells us that "sailors who prefer deck work to going aloft often feign epilepsy." Marshall intimates that there is much reason for assuming that many a soldier has been discharged and pensioned in consequence of feigning convulsions which medical officers denominated "epilepsy."

In speaking of the various motives for feigning epilepsy, Gavin, in his treatise on Feigned Diseases, says: "Nowadays, this disease is not unfrequently pretended by recruits at secondary examinations, and is often feigned to escape military flogging. It is frequently assumed by individuals as a mode of obtaining a livelihood, by imposing on the ignorance and compassion of the charitable, and also to escape or delay impending

punishment." Esquirol refers to the case of a girl who, having heard that marriage was recommended for epileptics, "feigned the disease to obtain the remedy."

An examination of all the literature upon the subject, to which I could obtain ready access,* has failed to disclose an instance of feigned epilepsy in which the motive was similar to that by which Clegg, whose case I now propose to report, was actuated, when out of prison, namely, a decoy for the purpose of enabling others to commit the crime of picking pockets. The case of Clegg also presents a remarkable instance of prolonged, daring, skillful and successful imposition, carried out under the garb of one of the most formidable and terrible of maladies which afflict mankind; deceiving, as his history shows, numerous physicians, including the medical officers of prisons, hospitals and asylums. Practicing deceptions which he knew would subject him to tests that involved suffering, self-injury, and even mutilation, in order to carry them to a successful issue.

James Clegg, *alias* James Lee,† was first brought to my notice in March, 1876. He is about thirty-three years of age, a native of Manchester, England, unmarried, and by occupation a thief. He is small in stature, of rather slender build, has small, dark eyes, set rather closely together, and straight, brown hair, which grows well down upon his forehead. His features are disfigured somewhat by several scars and the absence of a tooth; but withal, his countenance is not disagreeable in appearance, and, when *unmasked*, indicates a considerable degree of cunning and shrewdness; his voice is

* Thanks are due Dr. E. N. Brush, Assistant Physician of the State Lunatic Asylum, at Utica, for valuable aid in research. C. F. M.

† He says that his first name is James, but that Clegg and Lee are both assumed.

pleasant, and he frequently smiles when in *natural* conversation. He reads and writes fairly well. It appears from Clegg's statement that he comes "of honest and respectable parents," who were "strict High Church," and who tried to bring him up in the same way; but, regarding them as "too strict," he "lost faith," and, followed his own inclinations, which led him into "roving and evil ways." For this he blames himself, and says: "If I had polished and cultivated what virtue and talent I had, I would have been a different man to-day; for in anything I undertook to do, in regard to deceiving my fellow-man, I most always came off victorious."

His first plunge into crime was at the age of nine years, when he robbed his father, who was a shop-keeper, stealing all the money contained in the till, throwing the cash box over a fence into the back-yard, and leaving the door open to make it appear that burglars had done it. His success in this adventure encouraged him to keep on pilfering, which he did at every opportunity. When he reached the age of sixteen his father died, and Clegg determined "to go out into the world, and shift for himself." He ran away from home, taking up his abode in an obscure portion of the city, where he "kept house with a girl," until his money became exhausted, "when," says he, "I had to go out and pick pockets to support me and her, for I liked her to look as much like a lady as possible." His mother, learning of his whereabouts, caused his arrest, and induced him to return home and promise to behave himself, which he did for a short time. "But," says he, "a square life I could not lead, so I determined to lead a crooked one." He again abandoned his home and fled to London, accompanied by his former female companion in vice, taking up his abode at a house

called the "Sportsman's Arms," in the slums of the city. This was about the time of the approaching marriage of the Prince of Wales. Clegg, taking advantage of the excitement in the city arising from that event, industriously plied his trade of pick-pocket, accumulating in the course of a fortnight, upwards of one hundred pounds, which he gave to the girl for safe keeping. On the day of the Prince's marriage, however, the girl "ran away with another fellow," taking all the money with her. This occurrence angered Clegg, and caused him to feel that he "would have killed her" had he discovered her. "But," he continues, "I concluded I would try and drown my grief that night by going out to see the fireworks. On my way I saw a crowd of people around a man in a fit. I went among them, and robbed two strangers of their watches. A young thief that seen me get them came up to me and wanted his share of them, which I was obliged to give him. He then introduced me to the gang of thieves he was working with, and persuaded me to join them; so we all went down to a 'padding-ken,'* where thieves, prostitutes and criminals of all kinds resorted, and I began to think myself of some importance to have the honor of becoming one of them. One of the gang, named McCarty, took me in charge to put me through, and to see what sort of stuff I was made of, and what I could do. After he got out of me all he wanted, that is, about my family, &c., and made me take the oath of allegiance not to peach on them if I got taken, they enrolled me as one of them."

McCarty, it appears, was what is known among criminals as a "dummy chucker," that is a person who falls down in public places in a pretended fit, while his companions in vice pick pockets among the crowd

* A common resort for criminals.

that gathers about him. He took a fancy to Clegg and became his preceptor in the art of dummy chucking, teaching him the important points from books and by example. Clegg proved an apt scholar as the sequel will show.

They used to take excursions together to Aspinwall, Kingston and other places, McCarty chucking dummies while Clegg picked pockets among the gaping crowd. McCarty's subsequent arrest and imprisonment afforded Clegg an opportunity to assume the role of dummy chucker, which he did successfully, as he was not well known to the police authorities, and having a youthful face, people seeing him in a fit, would stop and sympathize with him. He says that in London he has frequently been placed in a cab and driven to the office of a physician or to a hospital, where he has kindly been "brought to" without having once been detected, or, so far as he knew, even suspected of being an impostor. Finally, however, on one occasion, having chucked a dummy whereby his confederate was enabled to steal a valuable watch, he was arrested as an accomplice. A criminal lawyer whom he engaged to defend him, advised him, when called for trial, to "chuck a dummy in the court," Clegg accordingly, as he says, "chucked a beautiful dummy," whereupon a medical officer was summoned, who, after a careful examination, pronounced him "a bad case of epilepsy," and he was accordingly "honorably discharged." Clegg says there was a jollification over him when he returned to the "padding-ken," and after that he was regarded as the "head dummy chucker." Having thus distinguished himself in the estimation of his associates, his services were naturally in great demand. He was sought after by the most skillful pick-pockets; with these he operated, attending services at wealthy and fashionable churches,

chucking dummies in the aisles when the congregation was passing out, while his fellows picked pockets. He would also attend funerals of persons of note, and, apparently overcome at sight of the corpse, would fall down in a "fit." He says: "many a time have I chucked a dummy while looking at the corpse, and caused an excitement while the other boys plundered the poor flats." Becoming known to the authorities in London, Clegg, in 1865, departed for Scotland, in company with his friend McCarty, whose term of imprisonment had expired. By this time he had acquired such proficiency in his "art" that his old master, McCarty, delegated that branch of the "business" exclusively to him. Reaching Glasgow, they planned and attempted to execute a robbery which is best described in Clegg's own language: "We learned that there was a certain ship-builder in Greenock who paid his men every Saturday, and that the money to pay them with was brought from a bank in Greenock every Saturday morning. So we engaged another fellow to go with us and help get it. We were to meet the messenger coming from the bank with the money, and I was to chuck a dummy right before him on the sidewalk while the other fellows would bustle (jostle) him, and McCarty would snatch the bag and get away to Glasgow, where we would all meet. Well, you see, we had everything down as fine as could be, and felt sure we would succeed. So away we went down on the first train on Saturday morning, and hung around the place till we saw our marker with the bag. I went before him and chucked a beautiful dummy while he was walking down one of the principal streets; McCarty snatched the bag but did not get far away with it. He was collared about two blocks from where I lay in the dummy. Of course I had to come to and hurry away out of sight, when I

heard the people talking about what had happened, so I escaped again and poor McCarty got six years at Perth." After this exploit, Clegg again returned to his native town, where, in company with a vile woman, he conducted a house of assignation and general resort for criminals, receiving stolen goods and also plying his favorite vocation of dummy chucking. Here he was arrested, convicted and sentenced to prison for a term of twelve months at New Bailey. While undergoing this, his first imprisonment, Clegg, in an altercation with a turnkey, who had punished him severely, stabbed him three times with a knife. The turnkey's wounds not proving immediately fatal, Clegg was indicted for attempt at murder. While awaiting trial he had several "fits," which induced his counsel to defend him on the ground of "temporary insanity due to epilepsy." Medical evidence was adduced at the trial, to show that he was an epileptic, and, consequently, not wholly responsible for his acts at the time of the stabbing. The defense was so far successful as to secure for him a mitigated sentence to seven years of penal servitude. He was now transferred to Milbank prison, in accordance with the custom, to undergo nine months of solitary confinement prior to being put to labor upon the public works. Clegg says that every convict at Milbank is subjected, when received, to a rigid medical examination to determine if he is fit for "able-bodied service." "When the doctor examined me," said he, "he pronounced me an epileptic, by the expression of my eyes, and I was put away among the other fit cases, who were treated better than the well convicts." Tiring of life at Milbank, Clegg "recovered" sufficiently to obtain a transfer to Chatham, an "able-bodied station," where he remained about eighteen months; but not liking the work there, the "fits" re-appeared

with marked severity, his objective point this time being a transfer to Woking, an "invalid station." It appears that the medical officer at Chatham prison was suspicious of him and subjected him to several severe tests before making the transfer. Clegg says, "I had to undergo a good deal before I got sent away from Chatham, such as having a lance shoved under my finger nails and stuff (probably irritants) put into my eyes whenever I used to chuck a dummy. But I never flinched, and at last the doctor sent me away to Woking as a bad epileptic case." Clegg remained at Woking about two years, spending most of the time in the hospital as "the worst epileptic case there, according to the doctor's statement." Being confined so much with epileptics, while in prison, Clegg improved his opportunities for clinical observation of the manifestations of genuine cases, and familiarized himself with the various symptoms and conditions which they exhibit in the intervals of the paroxysms, as well as with the medical treatment they received—a knowledge which he afterwards frequently turned to advantage in carrying out his deceptions. From Woking he was transferred to Dartmoor, a "convalescent station," which he describes as being "a very cold and dirty prison," and adds: "but that did not make much difference to me, for I was always in the hospital. I never let up chucking my dummies, because they were the means of saving me from a great deal of trouble and hard work." At the end of six months at Dartmoor, Clegg, with several other invalid convicts, was transferred to Parkhurst prison, Isle of Wight, because, he said, the doctor was afraid he would hurt himself in a fit. "When we got to Southampton," said Clegg, "I chucked a beautiful dummy to get the keeper to undo the chain we was fastened together with, but he would not do

that, and the people that gathered around was for throwing him into the water; for they all pitied me, seeing me in convulsions. However, he managed to get us over to the prison, where I was put into the hospital." It seems the doctor at Parkhurst was a very "severe" man. "He had been in the army and was up to all the tricks" of impostors. When making his rounds in the hospital one morning, Clegg, who had been waiting for an opportunity to "establish his case," chucked a dummy "right before him," remaining in convulsions about an hour. The doctor pronounced him "a severe case of epilepsy," and ordered him a pint of porter, daily, "to keep up his strength." Clegg states that the strain upon him, mentally and physically, was very exhausting when he had to "work the fits hard" to carry his point. (This fact was quite apparent to me after having seen him pass through a series of "convulsions.")

After spending three or four months in the hospital at Parkhurst, Clegg again "improved" sufficiently to be sent out at "light work"—picking oakum—but still occasionally having a "fit." It seems that among the prisoners at Parkhurst were quite a number of epileptics, several of whom were simulators. Conviction of one of the latter created suspicion, on the part of the officials, concerning the others, including Clegg, who, learning that he was suspected, and well knowing the punishment he would get if detected, resolved upon a desperate method of convincing the officials that *his* was a genuine case. One Sunday morning, when going from his cell, which was located in the third tier, to the chapel, he chucked a dummy on the corridor, rolled off, and fell to the floor below, a distance of nearly thirty feet. In this adventure he sustained greater injury than he anticipated, although not expecting to

escape *all* damage. By the fall he knocked out a front tooth, disfigured his nose, and lacerated his face and head. Unconsciousness this time was real, and lasted for twelve hours. That "fit" removed all doubt as to the genuineness of his case, and secured for him the confidence and sympathy of the officials. He was retained in the hospital about four months, was allowed extra diet, such as eggs and porter, and was "treated first-rate;" and nine months commutation of sentence, which had been cut off for previous bad conduct, were restored to him. The doctor also caused padded cells to be provided for all the epileptics in the prison.

Clegg was discharged from prison in November, 1873, and returned to his native city. Arriving there he found that his mother had died during his absence. On the second night after he reached Manchester he robbed his aunt, with whom he was staying, and fled with the proceeds to London; but, finding only poor luck there, he proceeded to Glasgow, where he robbed a house, securing about four hundred pounds in bank notes, and immediately sailed for America. Landing in New York he resumed his old vocation of dummy chucking, "which," he says, "was something new among the crooked (criminal) people there. They never saw a man before that could do it as it should be done."* He joined a gang of most skillful pick-pockets, with whom he operated in New York and its environments, occasionally journeying to Boston and Philadelphia. Large retail dry goods houses afforded a rich field for them at certain hours of the day, when well filled with lady customers who would readily be thrown off their guard and into consternation, at the

* It is doubtful if the slang term, "dummy chucker," is familiar to the criminal fraternity of this country. Clegg stated that he knew a number of "professionals" in England, but none in America.

spectacle of a well-dressed young man writhing in convulsions on the floor. The ferry boats also, at certain hours of the day, when crowded with passengers, offered excellent opportunities for their operations. On one occasion, on a Hoboken ferry-boat, Clegg feigned a fit, and was immediately surrounded by a crowd of anxious lookers-on: a kind-hearted physician, who happened to be on board, elbowed his way through the crowd to offer his assistance, and while doing so was relieved of his watch. The doctor, unaware of his loss, did what he could for the "poor sufferer." When the boat landed he called a cab, and after removing him to his own office near by, he succeeded, after considerable effort, in "restoring" the patient, and, at about the same time, discovered the loss of his watch. Clegg expressed great sorrow, and denounced the outrage, but the doctor consoled himself by the reflection that the loss of the watch was of little consequence compared with the life he had been instrumental in saving. Clegg admits that for once his conscience smote him, and avers that he really tried to get the watch for the purpose of restoring it to its owner, but it was "sold" before he got back to the city again. On another occasion he feigned a fit on a Fulton ferry-boat, and was taken in an ambulance to Bellevue Hospital. After pretending to sleep for an hour or two at the hospital he "recovered," but the authorities were suspicious and detained him, as the nurse informed him, for the purpose of having him examined by one of the physicians of the Hospital for Epileptics. In due time the physician from the epileptic hospital arrived, and Clegg, who was on the alert, hearing the nurse say, "there comes the doctor," feigned a fit and was in "convulsions" when the latter reached his bedside. The doctor, after watching him a few moments, depressing his eyelids,

trying to feel his pulse, and observing the numerous cicatrices on his face and head, expressed the opinion that it was a case of epilepsy, and on the following day Clegg was allowed to go home.

Subsequently he was committed to Blackwell's Island prison for stabbing a man, and, while there, came under the professional observation of the Chief of Staff of Charity Hospital, who also pronounced him an epileptic. When his term on the Island expired he returned to New York, committed a burglary, was arrested, convicted and sentenced to Sing Sing prison for two and a half years. At Sing Sing he feigned epilepsy, and was transferred to the Asylum for Insane Criminals at Auburn. He escaped from the latter institution by cutting a window bar, in February, 1876, but was captured and brought back the same day. On assuming charge of the Auburn Asylum, in March, 1876, I found Clegg confined in a strong room, and in restraint. The attendant informed me that he was "subject to terrible fits." I ordered the restraint removed and directed the attendant to notify me at once should a fit occur. In a few days the announcement came, "Clegg is in a fit." Proceeding at once to his room on the ward, I found him on the floor, his face distorted and livid; frothy saliva, tinged with blood, was oozing from his mouth; his body was apparently violently convulsed, while an attendant and two patients were holding his limbs to prevent him from self-injury. He seemed to be having a series of rapidly recurring convulsions, each one commencing with marked muscular rigidity, during which his head was drawn to one side and his body twisted upon itself. The thoracic muscles were rigid and respiratory movement was almost completely arrested. This tetanoid condition was rapidly succeeded by one closely resembling clonic convulsions: there were alternate

contractions and relaxations of different portions of the body, during which his head was frequently brought into such violent contact with the floor as to abrade the scalp; his tongue was wounded; respiration was jerking and noisy, and at each *expiration* bloody saliva was forcibly ejected from his mouth. His pulse was somewhat accelerated, his eyes were turned upward as far as possible, and his pupils were moderately dilated. (It should be stated in this connection that the room in which he was confined was partially darkened by a window screen which was kept locked. This fact would account for the dilatation of the pupils.) His hands were tightly clenched, but I observed that *the thumbs were not closed within the hands*,* also that *the finger nails were not livid*;† and *when I forced his hands open he immediately closed them again*.‡ There were also no visible indications of relaxed sphincters. The “clonic convulsions” were followed by a condition of muscular quiet, immobility and stupor, lasting for a few moments, during which he would occasionally open his eyes and gaze around in a confused and stupid manner,§ when, suddenly, another “spasm” would

* “They (epileptics) clasp the thumb upon the palm and hold it down with giant-like force.”—RADCLIFFE—Epilepsy and other Convulsive Affections.

† *Dic. des Sciences Medicales* Tome 51 Art. Simulation des Maladies—PERCY ET LAURENT.

‡ *Dictionnaire des Sciences Medicales*, Vol. 12, page 542 (Marc.) “Ordinarily the fists (poignets) are spasmodically closed in epilepsy and are opened with much difficulty, but when once opened they remain so to the end of the fit, or they are only reclosed when there follows an exacerbation of the spasm. The fists of a feigning epileptic are not only opened with less effort, but the impostor thinks he is acting well his part in immediately reclosing them, when once they have been forced open.”

§ “If an impostor is narrowly watched, he will be found to open his eyes occasionally, for the purpose of observing what effect his acting produces upon the bystanders. This led to the detection of a man who twice simulated a paroxysm so successfully as thereby to evade punishment, and very nearly succeeded a third time.”—MARSHALL—On the Enlisting of Soldiers.

supervene. The whole series of seizures lasted about an hour, and was followed by a pretended sleep, after which he appeared to be mentally confused for a day or two, and complained of headache and physical weakness.

While in the room with Clegg on this occasion, I intimated, in his hearing, that I regarded him as an impostor, although I must confess that I was not positive of this at the time, but from what I then knew of his history I deemed it safe to assume that he was shamming until I could satisfy myself, beyond a doubt, of the contrary. The attendants were instructed to insist upon it that he was not an epileptic, and to impress upon him daily that the medical officers regarded him as a fraud. The next time I saw him on the ward I accused him of feigning, which, of course, he stoutly denied; and, calling my attention to the scars on his head and face, asked, with some degree of feeling, if I thought he would hurt himself like that on purpose, adding that he had been subject to fits since he was three years old. I reiterated the accusation, and told him that I thought I would soon send him back to prison. My suspicions were strengthened on the following day by the occurrence of another series of "fits," which began *soon after I entered the ward*. This paroxysm was very similar to the one I have described, except that it was more prolonged, and, it seemed to me, a trifle more overacted. While he was in this attack I remarked again, in his hearing, that he was shamming; that while his acting resembled epilepsy somewhat, it was lacking in certain characteristic features, the absence of which stamped it as counterfeit. Clegg subsequently told me that this announcement staggered him. "For," said he, "I have studied the subject in books, have seen a great many epileptics in fits, and

have practiced it for fifteen years, until I thought I knew every symptom of it." After he "recovered" from this "attack," I managed to observe him on several occasions when he was not aware of my presence, and I was struck with the cheerful and vivacious aspect of his countenance, as compared with his facial expression at the time of my regular visit to the ward. He could assume, with apparent ease, that peculiar, indescribable cast of countenance which many epileptics habitually wear; and this, together with the cicatrices on his face and head, was well calculated to deceive even a skilled observer. My suspicions being now well confirmed, I had Clegg brought to the office, where I saw him alone, and assured him that I had sufficient evidence to convict him of shamming. He still denied feigning, but with less emphasis, I thought, than on former occasions, and this led me to press my point more forcibly, until, at last, he laughingly admitted that the fits I had seen him in were simulated, but mildly urged that he was also a victim of *real* epilepsy. The latter I positively declined to admit, and assured him I should return him to prison as a feigner; and that, with such information to warrant them, the prison officials would punish him unsparingly in the event of his having a "fit." After a moment's reflection, he said: "Well, I guess it's no use; but you are the first doctor that ever tumbled to me." Following this confession, his countenance underwent a marked transformation, in which the "epileptic look" vanished "like dew in the sunshine." Clegg was transferred to Auburn prison as *not insane*, remaining there until the expiration of his term, in December, 1876.

After his release from prison, he went to Boston where he resumed the practice of "dummy chucking," in con-

nection with a gang of pick-pockets, subsequently followed the Marquis of Lorne through Canada, chucking dummies in the crowds that flocked to see his Lordship. Returning to New York, he was again arrested on a charge of burglary, was convicted and again sentenced to Sing Sing prison, this time under the name of James Lee. Soon after reaching Sing Sing, he became involved in trouble, and, in order to escape punishment, feigned a fit, not expecting, however, to be sent to the Asylum again. "I didn't intend," he said, "to work the game hard enough for that," and he was surprised when the prison physician committed him, with two others, to the Auburn Asylum, where he knew he would be recognized. He concluded, however, to keep up the deception as long as possible. Arriving at the Asylum, his countenance wore the expression of an "epileptic imbecile," which the physician's certificate accompanying him declared him to be.

Of the three patients admitted that morning an inexperienced observer would, I doubt not, have suspected Clegg the least of all of being a feigner. Meeting me on the ward he threw off the mask, laughed heartily, and begged to remain in the asylum a few days "to recruit up." He was subsequently again transferred to Auburn prison as *not insane*.

While in the asylum the last time I requested Clegg to feign a fit in my presence, which he did, borrowing my pocket-knife, with which, as a preliminary step, he deliberately cut the side of his tongue; then, uttering the "epileptic cry," he fell violently upon the floor in a "convulsion." Subsequently, at my request, he repeated the imitation, in a private room, in the presence of several medical gentlemen, among whom were Drs. Chapin and Wise, of the Willard Asylum.

As to whether it is easy or difficult to feign epilepsy successfully, authorities appear to be divided. De Haen observes that he has seen the disease simulated with horrible accuracy, and cites the case of a young woman who had successfully stood the test of fire on three occasions without wincing. Subsequently being imprisoned for murder, she avowed the simulation, and so accurately imitated a seizure in the presence of Van Swieten and De Haen that they thought the simulated fits had become real. Says Gavin: "During these feigned convulsions impostors have suffered the most flagrant liberties to be taken with their persons without betraying the least consciousness of what was going on; such as having pins and needles run into different parts of their bodies."

Clegg stated to me that while in prison he made it a practice to complain of headache, vertigo, tinnitus aurium, lassitude, &c., between the paroxysms. Occasionally a physician would question him, among other things, regarding the kind of medicine he had been accustomed to taking for the fits. He always replied: "Bromide;" "Because," said he, "that is the medicine the doctors give for it, you know." He realized that it would be apt to create suspicion if he fell in a manner to avoid injury; hence he refrained from selecting a "soft place" on which to fall. Reynolds* remarks that "choice of locality (for falling) does not prove that epilepsy is feigned; the absence of choice, on the other hand, is presumptive evidence that it is genuine; and this in proportion to the danger or the privacy of the locality in which the fall occurs."†

"Cicatrices on the skin of the face," says Gavin, "made with the design of presenting incontestible

* *Epilepsy, its Symptoms and Treatment*, p. 285.

† Portal. *Sur la Nature et le Traitement de L'Epilepsie*, p. 127.

proofs of anterior falls, never exist without tending to deceive the medical man." Clegg sets a high value upon the scars upon his head and face, acquired through falls. He says they have often served as aids in diagnosis to examiners who have pronounced him "an epileptic."*

In conclusion, the grounds upon which the opinion that Clegg was not an epileptic was based, may be briefly summarized as follows: First, the fact that he was a convict, sentenced to hard labor, furnished a strong motive for feigning, and suggested suspicion; second, the occurrence of a paroxysm during my visit to the ward; third, the readiness with which he spoke of his complaint, and called attention to the cicatrices on his face and head;† fourth, the marked change in his facial expression when he supposed he was unobserved; fifth, during the spasms the thumbs were not closed within the palms, the nails were not livid, muscular rigidity could readily be overcome, and the hands, after being forced open, were immediately closed; sixth, the sphincters were not relaxed; and, seventh, there were no ecchymoses, extravasations or minute petechial spots observable upon the forehead, throat or chest. The presence or absence of pallor was not determined by observation in Clegg's case, nor was any value attached to the condition of the pupils.

As regards the question of pallor, I agree with those who maintain that it is not a constant symptom attend-

* Fallot relates a case where "the limbs were covered with the marks of contusions of different dates, as evidenced by the differences of coloration," and where, "the night after admission, the impostor wounded his forehead and nose."

† Real epileptics, as a rule, dislike to speak of their complaint, and not infrequently try to deceive others, or even themselves, by giving a wrong interpretation or name to their symptoms. Beck and others call attention to the want of shame on the part of feigning, and the false shame on the part of real epileptics.

ing the onset of epileptic seizures. Reynolds speaks confidently of the absence of pallor in some instances. In a total of forty-five observations recorded by him, "pallor was observed in but little more than one-fourth of the cases." Owing to its exceedingly evanescent character, its presence can only be determined in cases that are observed from the very commencement of the attack. My experience leads me to conclude that, as a rule, in general practice, persons suffering from epileptic attacks do not come under medical observation until the "pallid stage" has passed. It, of course, can not be feigned; and while its recognition might warrant the dismissal of suspicion of shamming in a doubtful or suspected case, its absence in a given case would by no means justify a verdict of feigning.

Respecting the condition of the pupils during an epileptic attack, authorities are also divided; some claiming that the iris expands, a few that it contracts, while others declare that it oscillates. It is doubtless true that all of these conditions may occur during the several stages of a paroxysm; also, that the condition of the pupils varies in different cases. Sieveking states that the pupils are commonly contracted, but adds that he has "seen them very much dilated." *The important point relating to the condition of the pupils in epilepsy, as regards its diagnostic value is, that during a paroxysm, they are insusceptible to the influence of light.* This fact would be of great service as a means of diagnosis of feigned epilepsy, but for the difficulty of determining its presence or otherwise in a person violently convulsed.

RECENT JUDICIAL DECISIONS IN MICHIGAN RELATIVE TO INSANITY.*

BY H. M. HURD, M. D.,

Superintendent Eastern Michigan Asylum, Pontiac, Mich.

Upon the first day of October, 1874, Mrs. Nancy J. Newcomer was admitted to the Michigan Asylum for the Insane, at Kalamazoo, upon what was then regarded as a valid order, by the Superintendent of the Asylum, Dr. E. H. Van Deusen. She was accompanied by one of the superintendents of the county poor of Calhoun county (where she had been temporarily residing), a gentleman of character and excellent reputation, who for many years had discharged the duties of his office. He signed the order for her admission and support, and she was received in good faith. Subsequently to her discharge it was ascertained that the order was signed by one superintendent of the poor only, and claimed that it was defective, in that it had not been signed by a majority of the superintendents or by the whole board. Her friends, however, were fully cognizant of the entire proceedings at the time, and her mother, two sisters, a daughter and a son-in-law were all concerned in transferring her from home to the asylum. Although she had a husband she was not living with him, and he made no effort, at that time, or subsequently, to assert any legal rights over her. Upon the trial of the case, notwithstanding this, her daughter, one sister, mother and husband united in affirming that they never believed her to be insane, and had only consented to her going to the asylum because she was

* Read before the Association of Medical Superintendents of American Asylums for the Insane, at Philadelphia, May, 1890.

nervous, depressed, and needed rest and quiet. They corresponded regularly with the medical superintendent about her. After a time one or more of them visited her, and subsequently received letters from her, but never, in any way, intimated, either in correspondence or conversation, that they did not believe her to be a proper patient for asylum care and treatment. It was proven in court that the superintendent of the poor acted solely as their representative in conveying her to the asylum, and that they reimbursed him for necessary expenses, and afterwards paid the bills for her maintenance.

Her history, in brief, was as follows: At the age of twenty-two years, after the birth of a child, she had an attack of insanity, of about one year's duration, and was treated at home. During the attack she attempted her own life with a knife, and ever afterwards bore the marks upon her throat. Her subsequent life had been a varied one. She had lived in a number of the western states; had been divorced from one husband and had separated from another. She had taught school and had also studied medicine, but had never practiced the profession to any great extent. She was forty-five years old and was suffering from those disturbances of the nervous system which accompany the climacteric period. A maternal aunt had been insane at the same period but had recovered. Her symptoms, which were those characteristic of melancholia, were of several months' duration. While living in Toledo, Ohio, during the preceding spring she appeared strangely; she talked disconnectedly; thought people were trying to steal her property; had secured her doors with double locks to prevent loss by theft; at times was nervous and excitable, and at other times gloomy and unsocial. She made purposeless errands, sent for laborers to come to her rooms to do

work, and when they came seemed unable to communicate her wishes. She forced herself upon the society of comparative strangers, and was distressed and bewildered, lacking self-reliance, concentration of purpose and ability to decide questions.

In July she went to Michigan to reside with a married daughter, and was then careless of personal appearance, profane and irritable. She talked to herself; followed people aimlessly about; wandered at night about the fields; worried about imaginary business troubles; watched the railroad trains for the coming of persons who were not expected; went to the river to hunt for valuable property which she feared had been thrown into it; was wakeful at night, and deported herself in many ways so strangely as to cause much anxiety to her friends.

Upon her admission she was pale and anæmic, thin in flesh, and her movements were weak and uncertain. Her hands were clammy, her pulse feeble and the circulation irregular. She was apathetic and indifferent, and apparently had very little mental action. When addressed she made no relevant reply, and her manner betokened a vague feeling of apprehension and distress. The medical superintendent endeavored to ascertain something of her history from her. He inquired in what way she was suffering, asked why she had come to the asylum, and tried to explain to her the objects of the institution, but elicited no response. She said nothing by way of dissent or objection, and made no resistance to being received. She was assigned a room upon the reception hall, whither she went without giving any evidence that she realized where she was going. At first she was restless, vaguely distressed about herself, and abstracted in manner. She soon developed cough, acceleration of the pulse, elevation of temperature,

and gave evidence, upon physical examination, of the existence of pulmonary disease. She slept poorly, took food reluctantly, and refused all medicine. She grew progressively feeble; was confined constantly to her bed, and had many of the rational symptoms of tubercular disease of the lungs. In January she was visited by her sister and daughter. She appeared pleased, and expressed a wish to return home with them, but soon wearied of their presence. She became apprehensive and troubled; worried constantly, saying she should not have money enough to pay her "taxes and the doctor," and required daily assurances that no money was required. During the following month she began to improve and developed a voracious appetite. She became impatient for her meals, and on several occasions woke in the night and called for breakfast. There was little or no improvement in mental condition. She soiled her person, talked childishly, wanted "to go to Albion," was sure she was not in Kalamazoo, etc. About the first of May she began to sit up, and from that time gradually gained in bodily health. She then, for the first time, engaged in connected conversation and in reading, and was able to write letters to her friends. She walked about the grounds, but continued feeble in body and mind. Subsequently her mental and physical condition gradually improved until her removal, upon the fifth day of August, 1875. She was discharged, improved, and sent home by request of her friends, in the custody of the officer who brought her to the asylum.

Her testimony, subsequently, upon the trial, developed the fact that she had little recollection of the events of her illness. She remembered names and faces to some extent, but was unable to describe occurrences, in order, or accurately, and her testimony on all important points was contradicted by many reliable witnesses.

Soon after her return home she wrote to the superintendent and complained of her treatment while in the asylum. She alleged that she had taken calomel until her teeth had become loosened in their sockets, and averred that she was incurably lame by reason of injuries received from her fellow patients, and from long disuse of her limbs while lying in bed.

In 1877, nearly two years after her discharge, she brought an action against the medical superintendent for trespass, false imprisonment and malpractice, and asked damages in the sum of \$40,000. In her declaration she complained of assault on the part of the medical superintendent, "with force and arms," and of being "seized," "dragged about," "struck many violent blows and strokes," and forced to remain imprisoned in the asylum for ten months, contrary to her wishes, and to the great detriment of her health and professional reputation. She further charged him with conspiracy with the superintendent of the county poor and her son-in-law, to detain her in the asylum; and also that while there she was compelled to swallow large quantities of calomel (of which she took none) and other drugs; that she was obliged to bathe in foul water; that her clothing was taken away, and that by means of this improper treatment she was debarred from attending to her business as a physician.

The case came upon trial in the Circuit Court of Kalamazoo County, the following year, and had many sensational accompaniments. The plaintiff walked with a cane, and went in and out of the court room leaning upon the arm of an attendant. She gave her evidence with a certain plausibility and native shrewdness, which impressed the jury that she never had been insane, otherwise she could not have *remembered* so clearly occurrences during her asylum residence. She

had a ready explanation for all insane acts, and when her statements were controverted by other witnesses she stoutly maintained her positions. The case was artfully presented by her counsel, and every available means of awakening sympathy for her was resorted to. Owing to the technical defect in the order of admission, the judge held that the plaintiff was falsely imprisoned, and allowed a large mass of irrelevant testimony to be introduced, including particulars of family quarrels at home, sensational and imaginary details as to her struggles and entreaties *en route* for the asylum, her appearance upon the cars, and her struggles to resist being placed in a carriage for conveyance from the railroad station to the asylum. An attempt was also made to prove that she was sane when admitted and entirely free from bodily disease; that her subsequent sickness was wholly due to her confinement and to the medicines which were administered.

On the part of the defense it was shown conclusively that she was insane; that her friends knew her condition, requested her admission and consented to her detention; that her life had been in serious jeopardy from disease; that she had received no calomel or any harmful drug, and that her treatment during her stay was kind, judicious, and in every way suited to restore her to health.

The judge charged that it was a fundamental principle of law that *no person* may be deprived of liberty, and the advantages thereof, without due process of law, and that any involuntary control or seclusion of another against his will, is imprisonment, and it is only justifiable when enforced under valid laws. In other words, any detention of a person, sane or otherwise, unless actually dangerous, is false imprisonment. It was also charged that *intentional wrong* was not essential to

create a right of action. If the defendant, acting in good faith, intentionally caused the plaintiff to be imprisoned, such act was presumed to be unlawful and he should be held responsible for all the damages which the plaintiff suffered, as a natural consequence of such imprisonment. Beyond this, it was charged that if she was thus confined without lawful authority, sick and in need of medical treatment and subjected to improper medical treatment, he was responsible for all damages which followed. As the result of the trial, and the charge to the jury, a verdict was rendered for \$6,000 damages.

An appeal was immediately taken to the Supreme Court, upon the following grounds:

1. That an asylum for the insane is not, in any sense, a prison, and that a judicial condemnation, as of a criminal, is not pre-requisite to admission.

2. That insanity, in any of its phases, is a disease, and that humanity suggests and necessity demands the right of friends and the public generally to confine an insane person in such a place that he will be safe from injuring himself and others, and that there is no legal necessity that, in any case of insanity, the friends of an insane person, or the public, should delay such confinement until injury to himself or others has occurred.

3. That the right to restrain an insane person is necessarily incident to every case of insanity; that it is a natural right and does not depend for its validity upon any statute.

4. That the phrase "due process of law," is equivalent to "law of the land," including both common and statutory law, and is "intended to secure the individual from the arbitrary exercise of the powers of government, unrestrained by the established principles of private rights and distributive justice."

5. That good faith and honest intentions should protect the superintendent, physicians and attendants from any liability for their acts in detaining, caring for and treating an insane person.

In January, 1879, an opinion was rendered by the full bench upon the points involved, and a new trial was ordered upon technical grounds for defects of procedure. In the opinion filed by the majority of the court, the right of friends to procure treatment for an insane patient, was clearly enunciated by Judge Marston, in the following language:

"It seems to me quite clear that these several provisions (referring to the statute under which the Michigan Asylum for the Insane was organized) recognize the right of the friends and relatives of an insane person to request his reception at and treatment in the asylum, and that no other, farther or different process is required, nor is there anything indicating that only the dangerously insane can be so received. It may be of the utmost importance, in many cases, that speedy aid should be afforded, even though no dangerous symptoms are manifested, and when delays would but aggravate and render more slow and difficult a recovery. In the very large majority of cases, the natural love and affection of the friends and relatives of the person so afflicted, and their watchful and jealous care of all unnecessary restraint, will prove a sufficient protection against abuse. There may be cases where no such love, affection or watchful care will exist, and when for sordid or unworthy motives parties may be deprived of their liberty under a pretense of insanity. This may be so, but whether, when relatives thus act upon their own responsibility they do not act at their peril, may be a question of very great importance, but which does not arise, and therefore will not be passed upon in this case.

There are many instances when, without a judgment or process of a court an act may be done, but at the peril of the person acting, who when called to account therefor, assumes the burthen of proving that he was justified in what he did, and the same rule might apply in this class of cases where the friends or relatives act upon their own responsibility."

The question of "good faith" on the part of the superintendent acting as a protection against similar actions is thus considered :

"But when a person is brought to the asylum by or at the request of his relatives, would the superintendent thereof, who, after a careful investigation and examination of the patient in good faith and a belief based thereon, that he was, in fact, insane, act at his peril in receiving, detaining and treating him thereafter.

I am clearly of opinion that he would not be liable, under such circumstances, even although it should be made to appear that the person received was not insane. The good faith of the superintendent must be to him a protection as it is at least questionable whether in very many instances he can have any other. * * * Must not the superintendent act in accordance with his own belief? Can he be given any other guide? And if he errs, which is possible, shall he for such error of judgment, notwithstanding his motives were pure and praiseworthy, be held liable in damages therefor? If so, then he acts in a most difficult and dangerous position. He acts, not alone at the peril of the person being insane, in fact, or that soundness of mind has not been fully restored, but that a jury will so find upon a trial had months or even years afterwards, when the person is acknowledged by all to be no longer insane—when all the facts and circumstances, which were daily seen by the superintendent and his assistants, and

which satisfied him and them of insanity at the time, can no longer be seen or presented to the jury, with all their force, while the supposed sufferings of the patient while there—proper if insane but not if sane, will be presented in strong contrast, to arouse their sympathies.

* * * * * In my opinion the key to the entire difficulty must be found in the good faith of the superintendent. This implies and requires a careful, conscientious discharge of all the various duties assigned him under the laws, rules and regulations of the institution. If all this he has faithfully observed, he should not be liable to respond in damages for error of judgment or mistake. If, however, he acts in a careless and negligent manner, indifferent as to whom he receives or detains, or as to the treatment they receive, or corruptly, in improperly receiving or unduly detaining any person brought there, then for all such he should be held to a strict and rigid responsibility."

The justices, however, were divided as to whether the superintendent is liable for detaining a sane person whom he, in good faith, believes to be insane, two of them holding that he would be liable, and two that he would not. They were also divided upon the question whether in doubtful cases an inquisition to determine the insanity of a person is pre-requisite to his confinement in an asylum, two holding that it was; and two that it was not. The right of friends to restrain patients who were actually insane, for their own benefit and for the protection of others, was conceded by all.

The second trial occurred in October last, and under the rulings of the Supreme Court was shorn of all sensational elements. The plaintiff was not permitted, under these rulings, to introduce her former statements as to the alleged cruelty and abuse practiced in bringing her to the asylum, and was obliged to confine her

grievance to the matters "necessarily incident to confinement in a properly regulated asylum." The trial lasted many weeks, and was finally taken from the jury by Judge Shipman, who instructed them to find for the defendant, there being nothing to show bad faith in the conduct of the medical superintendent in receiving, detaining or treating her. The opinion of the judge was an elaborate one and conclusive, that the good faith of the superintendent was an effectual shield from such actions. The position assumed was that the office of medical superintendent was quasi-judicial in character. If he could determine, as all conceded he must under the law, the length of time the patient should remain under treatment, and when he should be discharged, he could also determine whether he was fit to be received at all. "The superintendent of the asylum has jurisdiction over the subject matter of insanity, and, under the statute and laws of the State, authority and power to decide *prima facie* what persons come within that class, when presented to him for that purpose, in either of the methods provided by law, and when so called upon it is his duty to decide the fact, and this determination will protect him while acting under it, until reversed by a proper tribunal. In exercising this power he performs a duty of a *quasi-judicial* nature, and is entitled to the same protection as other officers exercising like powers. Like them, in its performance he must be left free to act upon his own unbiassed convictions, uninfluenced by fear of consequences. He is not bound at the peril of an action for damages to decide right, but to decide according to his own convictions of right. Such of necessity is the nature of the trust assumed by all on whom power, in its nature judicial in a greater or less measure, is conferred. This trust is fulfilled when he honestly and

intelligently decides, according to the conclusion of his own mind, in a given case, although there may be doubts of its correctness, and when another mind might honestly come to a different conclusion."

As this opinion is in conformity with the previous decision of Judge Marston, it is not likely that it will be reversed, even if an appeal is taken to the Supreme Court, and hence it may be considered the law of Michigan regarding the rights, privileges and responsibilities of the medical superintendents of asylums. The right of friends to procure treatment for insane patients, which has been thus authoritatively stated in these decisions, has found expression in the by-laws of the asylums, which now provide for the reception of patients simply upon the *request* of relatives or legal guardians, in addition to the sworn certificate of two physicians as to the insanity of the individual.

It will be perceived that in the foregoing brief abstract no attempt has been made to discuss the numerous points of interest suggested by this case. I have merely given, as succinctly as possible, the theory of the defense, and the opinions of the judge, and desire in conclusion to call attention to the substantial advances which have been made in formulating the results of medical experience and teaching in legal decisions.

1. The legal recognition of the truth that insanity is a disease, an essential element of whose treatment is the restraint of personal liberty—the restraint of the sick chamber or hospital, and not of the jail or prison. The nature or character of the disease itself, and not its degree, determines the necessity of this treatment. Restraint is not employed under the police powers of the State to prevent danger to the community, but from dictates of humanity and sound reason to effect the restoration of the individual to health.

2. Equally important is the legal sanction given to the theory that the medical superintendent exercises a quasi-judicial function in the determination of the existence of insanity *at the time of the admission of the patient*. Under this view of the law, if he acts in good faith in receiving, he is protected. Without it every legal safeguard which might be devised would not avail against an action for damages.

3. Germane to this is the right expressly recognized to retain patients under treatment until the medical superintendent decides that recovery has taken place, without liability to an action for false imprisonment. The statement has been made that under the present New York law no necessity exists for such a decision. This is not clear. The primary object of this law would seem to be the protection of the personal liberty rights of the patient, and its provisions would at best constitute a protection to the medical superintendent in receiving a patient, but would not relieve him from responsibility in detaining him, nor protect him from any action for damages arising from alleged detention after the recovery of health. No medical certificates, legal forms or judicial proceeding will protect him in the after treatment of the case. Unless his *good faith in retaining* a patient can shield him as effectually as in *receiving*, he is liable to constant annoyance from the suits of unrecovered or disaffected patients.

DOCTOR BUCKNILL ON THE CARE AND LEGAL CONTROL OF THE INSANE.*

We acknowledge the receipt of a copy of this work with the autograph of the author, a token of private friendship, which should not, however, disqualify us from exercising the part of a dispassionate reviewer of the very positive, not to say, bold views expressed in some portions of the book.

If not *facile princeps* among the large array of distinguished alienists of Great Britain, Dr. Bucknill must be acknowledged as entitled, from his long experience in various positions of responsibility as superintendent and visitor of institutions for the insane, editor, &c., at least to the place of *primus inter pares* among the experts of the specialty. He has also the advantage of many, whose profound acquisitions in science can not be disputed, in the superior power and originality of his literary style, and that entire freedom from mere traditional reverence for authority and for "vested interests" which enables him, with undaunted courage, to attack the most difficult problems, and to insist upon the paramount obligation of recognizing and accepting scientific truth and fact in spite of all prejudice or private and personal considerations.

The book consists of the papers on *Lunacy Law Reform*, which appeared anonymously during the previous year in the *British Medical Journal*, and which are now revised and reprinted with the weight and responsibility of the author's name, inasmuch as their anonymous character had been used by some to dispar-

* The Care of the Insane and their Legal Control: by John Charles Bucknill, M. D., Lond., F. R. S. London: Macmillan & Co., 1880.

age the value of their arguments. They are directed to the exposure of certain evils which he points out, arising from the too complicated and various modes of provision for the insane in England. And especially are these papers aimed at the system of proprietary or private asylums, which, he declares, are too often carried on, by mere speculators and non-professional men, as a profitable private business.

Dr. Bucknill says that of this "class of licensed men who carry on the business of boarding lunatics, only 66 per cent belong to the profession, many of them, no doubt, in spirit and in truth; but many others in such a sense that their medical qualities are hidden under their great economical and financial abilities." The doctor makes a distinction between the charge for professional services to which every medical man is entitled as a legitimate use of his acquired knowledge, and the profits on the board of his patients. The first, only, he considers professional; the union of the two he repudiates. He maintains that the liability to abuse of trust under such temptation as exists where medical treatment and the profit of boarding are united, is so great that the State should not permit the existence of such proprietary establishments. He acknowledges the most honorable exceptions, but, nevertheless, condemns the system as one inconsistent with professional work, and subversive of the rights of the insane. He would not permit a physician to treat and board his patient at the same time, unless the patient were at liberty to withdraw at any time of his own will.

Dr. Bucknill urges and insists upon the principle once laid down as a maxim by Dr. Conolly in his first work on insanity, "Suggestions for the better Protection and Care of the Insane," that "every lunatic asylum should be the property of the State, and be

controlled by public officers." He does not disagree with Lord Shaftesbury in his testimony before the select commission of 1877, that the character of private asylums has been greatly improved of late years, relieving them, in great measure, of the sweeping condemnation his Lordship passed upon them in 1859; but still there are evils and dangers inherent in the system, which he maintains can never be fully got rid of while human nature remains what it is.

In the words of Lord Shaftesbury, "the vicious principle of profit runs through it all," and, to quote his Lordship's own declaration, it will prevail "unless you can introduce such a rule as to make the hospital system universal; then to some extent the principle of profit is eliminated, and I should be very glad to see it, and I only wish to retain a certain number of (licensed) houses which, as I said before, will be of the highest order."

Having, in his previous papers, fairly beaten this argument up to a red heat, Dr. Bucknill tops the climax, in his address before a branch of the British Medical Association, in February last, with the following energetic passage:

"I have heard that in China, medical men are paid salaries so long as their patients remain in good health; but a stated income received from a patient during the continuance of disease is, so far as I know, a thing unheard of out of asylums. I beg you to observe that all I have been saying has reference to the unchanging, and I fear unchangeable principles which underlie human activities. I might have a good deal to say on the details of asylum management, if I thought it needful or desirable to do so; but I desire to put aside every word which may be construed to have a personal reference, and to ask your opinion on the broad ground of principle, whether it is right that diseased and helpless persons should be detained and confined in asylums for the profit of private individuals; the amount of that profit depending upon what these individuals choose to expend upon the

comfort and enjoyment of their inmates, and its continuance upon the duration of the disease, or what they choose to think its duration. May I not fairly ask you to consider what can possibly justify the existence of these institutions for private improvement, owned and kept by private people, lay and medical, male and female; there being nothing like a parallel instance in which the liberty of Englishmen is submitted to such control."

It must be borne in mind that among the provisions of the English law to which Dr. Bucknill directs attention, is that of committing the pauper insane to proprietary asylums. On this point he says: "The detention of pauper lunatics, in private asylums, is an admitted abuse, solely due to the default of the authorities."

Dr. Bucknill would provide for two classes of insane only, but provide for them separately: one, the independent or paying class; the other, the pauper. His scheme in regard to "the upper and middle classes" he thus sets forth in his preface:

First. The establishment of State asylums, no more public than the existing institutions, some for the opulent insane, for whom asylum restraint is needful, and others for the less opulent insane for whom the asylum restraint and the economy of resources is needful.

Second. The organization of domestic treatment for the quiet and harmless insane, as single patients, under satisfactory medical management and official inspection.

Third. The re-organization of the best existing private lunatic asylums, and of any new ones, for three or four patients. The entrance to such asylums to be voluntary, and the detention not to exceed a moderate and fixed period after an inmate has given written notice applying for discharge.

He states:

"Every part of the scheme has been put to the test of trial, and already exists in the most successful practice. The system of State asylums is general throughout the United States, and uni-

versal in Holland, having, in the latter country, been made to replace the old bad system of private asylums, by the devoted energy of one man, the great physiologist and philanthropist, Schröder Vanderkolk. In Scotland, moreover, a kindred system exists in the excellent chartered asylums of that country. In our own country also State asylums exist for special classes of the insane."

In carrying out this system he says:

"The re-arrangement of official supervision and control is also a necessity which it will be an impossibility long to postpone. The present system is in the highest degree artificial and makeshift. Every wall in the edifice has a settlement and every timber is warped."

Dr. Bucknill also refers to the earnest recommendation, in 1859, of Lord Shaftesbury, "that hospitals for the well-to-do should be established at the public expense."

In this connection we would refer to the fact that before the Parliamentary Committee on Lunacy Law Reform, in 1877, Drs. Bucknill, Lockhart Robertson and Crichton Browne, the latter two at present Chancery Visitors, and the former an ex-visitor, recommended the establishment of three State asylums for chancery lunatics, each asylum to accommodate two hundred patients. They represented that there were six hundred and seventy-six of this class, wards of the Court of Chancery, scattered in the several private and registered hospitals of England and Wales, for whose maintenance upwards of \$500,000 a year was spent under the sanction of the court. Dr. Bucknill, (p. 100), says: "If the establishment of such State asylums for Chancery lunatics would be right, it is difficult to see on what principle such institutions should be confined to Chancery lunatics. Rather, it would seem that, as Chancery lunatics are already provided with costly and elaborate means of protection, which are not enjoyed by ordinary lunatics,

their further protection by means of separate State asylums for their use, is less needful for them than for paying patients who are not under the care of the court." He argues that all insane persons of property, or supported by friends, should be under protection in the same way, "while all lunatics maintained at public cost may well be left under the protection of the Local Government Board. This is a social classification founded upon a real difference." And he further on adds: "it is desirable that State asylums should be founded upon the wide and reasonable basis of receiving all lunatics who pay for their maintenance." Again he says: "Each State asylum should have a governing body, composed of gentlemen and professional men, ready and willing to discharge the unpaid duties of control, similar to those now discharged by the committees of management, appointed by the Governors of Hospitals for the Insane." This would place these institutions under the precise form of government which the New York statute provides for State asylums.

The contrast between State institutions and proprietary asylums, as Dr. Bucknill represents them, could not be more strikingly put than in the following passage from the preface to this book, although it is intended mainly to illustrate the difference between the system of the Queen's Prerogative in Lunacy, as exercised by the Lord Chancellor and that of the Board of Lunacy Commissioners:

"Under one system no interference with the personal liberty or the civil rights of any subject is ever attempted until after a judicial investigation, in which the liability to error is rather in the excess of caution and forbearance. Under the other system any one of the Queen's subjects may be deprived of his liberty, captured, confined and detained, by the proprietor of a licensed house, or his servants, upon the order of any person whatsoever, either a British subject or an alien, either an adult or an infant,

either a relative or a stranger, either an equal in social rank, or a menial substitute; the only conditions being that he has seen the alleged lunatic within one month of making the order, and that this is supported by the certificates of two men qualified to practice and practicing the medical profession.

Under one system, no person's liberty and civil rights are interfered with, unless he has been found by a competent tribunal of unsound mind, and unable to manage himself and his affairs. Under the other system this question is not raised, but any person can be indefinitely imprisoned who, in the opinion of two medical men, is a lunatic or idiot, or person of unsound mind, and 'a proper person to be taken charge of and detained under care and treatment.' "

In the appendix of the Parliamentary Report, "Abstract of American Lunacy Laws," it was stated:

"In the State of New York the legislation of 1874 has carefully guarded against improper commitments. The certificates of two physicians must be made upon oath, before a patient can be received into any asylum, public or private. A very stringent regulation is made in regard to the status of those physicians."

The New York law on this point is then quoted, together with the forms of certificates, &c., with this further comment; "Although in most States the certificate of physicians is required, in no other besides New York, is the approval of the court in regard to the medical certificates necessary, and in very few is the status of the physician defined."

This criticism of Dr. Bucknill, on the statutory provisions for the insane of England, deals mainly with the system of licensing private individuals to take care of the insane, though he enters, to some extent, into the general subject of provision, and especially touching the question of certification by medical men. In fact he has a chapter on the subject of medical certification, in England, which he thinks defective in many respects. He makes this sweeping denunciation: "A

more rough-and-ready scheme could scarcely have been devised, than these indiscriminating medical certificates. The same for the asylum, the hospital and the home; the same for the lunatic, the imbecile and the infirm of mind."

On the question of greater privacy in small proprietary asylums, and the inducements such privacy affords to friends of the insane to place them there, instead of in public asylums, Dr. Bucknill declares:

"There is no more secrecy in proprietary asylums than in hospitals for the insane, both institutions being visited by governors or visitors, and the officials of the one being as much under the obligation of secrecy as the proprietors of the other," and he quotes Lord Shaftesbury on the point of publicity and privacy as saying: "Some persons might be afraid that these (hospitals for the insane) would lead to publicity, and destroy the privacy which they now seek. But I really do not believe that that result would take place. I do not see that there would be the slightest publicity greater than there is now. Many persons whose families are afflicted with lunacy, think that they are keeping the fact in entire privacy. It is an error: If there is an insane relative in any family, it is invariably known. The world may not know where he is; but no family ever succeeded in suppressing a knowledge of the fact that there was a mad member connected with it."(?)

Dr. Bucknill, while advocating the abolition of the private asylum system, urges the extension of the plan of single patients, and says: "With skillful and faithful attendance and supervision, the plan supplies at present a social want which is as much as the commissioners have to say for licensed houses."

His text on this point is the declaration of a Commissioner in Lunacy in 1859, who stated as his opinion "that, as a general rule, persons who are of unsound mind and unfit, by reason of mental infirmity, to be at large or to take care of themselves, ought to be in an asylum." He quotes from Dr. Maudsley's book, 1867,

and from Blandford, 1871. In speaking of Lord Shaftesbury's disapproval of the single patient system, he says: "If he would investigate the mode of life of many chancery single patients living in their own or their friends' houses, or with doctors and others, or even as lodgers with well-chosen companions at the present time, he would change his opinion."

There seems, however, to be some difference of opinion as to whether patients were really better off, placed as single patients in private families than in asylums: whether abuses were not as likely, if not more likely, to occur in private houses than asylums. Dr. Crichton Browne, before the Parliamentary Committee of 1877, Question 1,464, testified:

"You think that in many cases living with relations is not so conducive to care, as being sent to an asylum?"

A. I do.

Q. 1,465. On what grounds?

A. On the grounds often of bad treatment, and want of skilled medical advice; general neglect and privation in many cases.

Q. 1,471. You mentioned many cases in which there has been violence in asylums and also in private houses; is that often the case now?

A. I believe that in private houses there is a good deal of cruelty. I found my opinion chiefly upon the condition in which lunatics are received into the public asylums. It has fallen to my lot to admit hundreds of lunatics covered with bruises, and with broken bones or with other marks of injury and violence.

Q. 1,473. Personal chastisement is not resorted to I suppose?

A. It is never heard of in asylums. An attendant may lose his temper and commit violence upon a patient, but such a thing as deliberate chastisement is out of the question in the asylums, although it does occur, I believe, amongst private cases sometimes. One of my colleagues brought to the knowledge of the board two cases in which a birch rod was kept for the correction of a private lunatic.

Q. 1,474. In those cases you mention in which marks were found upon lunatics, that would not be from ordinary chastise-

ment which was part of the system of the asylum, but from the unauthorized assault of an attendant?

A. In those that were brought to the asylum, the marks were due to assaults by relatives and friends. In these cases the marks of flogging have been discovered.

Dr. Bucknill is too wise and experienced to leave this important question open, however, for he says:

“Of course it is understood that the domestic care of lunatics requires constant and careful supervision. Ignorance and indolence are too common in the world not to endanger the good treatment of such helpless beings as lunatics even by their natural friends and relatives; and when the duties of guardianship are discharged by paid agents, watch and guard against the temptations of selfishness, ought, on principle, to be as strictly maintained when a patient is kept for profit as a single patient in a private residence, as when he is detained for profit in a licensed house.”

Dr. Bucknill himself in these papers, justifies this distrust of friends; for, through the various chapters of the work, he draws some of his most sharply outlined illustrations of wrong-doing and neglect from the conduct of private individuals in regard to their own insane relatives. Speaking of the counterpart of *Sterne's Captive*, he says: “I should have to take you to the lunatic asylum, and point out that cultivated and sensitive gentleman, deserted by his friends who seldom give themselves any trouble about his condition.” Again he says, page 17: “The insane members of the richer classes have been accumulated in institutions where they become the property of capitalists.” Again: “The rich lunatic could be locked up in a private place of confinement upon the order of any person who may be an alien, an infant, or a man of straw, with whom the owner of the place chose to make a pecuniary agreement.”

As it requires, always, two persons to make a bargain, the friends and relatives must, in the simplest

justice, be held equally culpable with these "proprietors." His own words would admit thus much: "The bias of affection would in all classes tend to retain the harmless cases of insanity under the home roof-tree. The bias of the evil brood of bad passions would be to immure them in the concealment of an asylum; to get rid of trouble; to diminish expense; sometimes to have freedom for misconduct."

Again he says: "Towards lunatics, on the other hand, the affection of relatives is too often in abeyance and patients are 'entirely abandoned to the care of others,'" and he cites in proof of this that Lord Shaftesbury had urged upon the committee in 1859, to re-enact a provision to compel a person under whose authority a private patient was confined to visit the patient "once at least in every six months during his confinement."

Dr. Bucknill claims that this domestic care would, in many cases, meet the prejudice and dread of an asylum, so often felt by the patient and his relatives, and at the same time, like the man of science that he is, he frankly admits and declares that "in all varieties of circumstances the distinctive feature is medical treatment."

He says further:

"It is a mistake to suppose that the domestic care and treatment of the insane is necessarily costly. No doubt money removes difficulties, and many patients who are not tranquil or trustworthy enough for domestic life in a cottage, could be thoroughly well taken care of with good attendants in the house of a doctor, or in an establishment of their own. But the experience of the Lord Chancellor's Visitors proves that judiciously selected cases of tranquil lunacy may be made more comfortable and happy in very homely places of residence, and at a very moderate cost. Therefore the development of this system is not for the advantage of the rich alone, but for that of all lunatics who are easily manageable, and are not dangerous, and it is in the development of this system of domestic treatment that the greatest promise lies of the

largest possible amelioration of the unhappy lot of those afflicted with mental disease."

After all it would seem to be pretty largely a matter of theory, and it comes down to the simple proposition put forth more than twenty-five years ago by the superintendents of the poor of this State, that the State should provide for all insane who are not in a condition to reside in private families. We thoroughly sympathize with Dr. Bucknill in what appears to be one of his leading objects, viz.: to bring the profession at large more in contact with this form of disease, and to familiarize them with its treatment, instead of relegating it altogether to asylums. The editor of this JOURNAL has urged this principle for many years.

The importance of the more general knowledge of insanity arises not alone from the fact that the practicing physician is called upon to certify cases of insanity for their proper commitment to institutions, for as a general rule such cases are so pronounced that they could hardly be mistaken by non-professional men, but such knowledge would promote that intelligent vigilance in private practice which illustrates the old adage: "An ounce of prevention is worth a pound of cure." We can not but think that, so far at least as this country is concerned, the care of private patients in cottages, or the boarding-out system in any form, must wait a generation before it can be compatible with what Dr. Bucknill admits is even before hygienic considerations, that is, "distinctive medical treatment." Besides, in this country the population is sparse, compared with England, and the proportion of those with large means who become insane is very small, and perhaps the English idea of personal isolation and individual autonomy are less appreciated here, where men are accustomed to live and act more in communities,

and where the light of publicity penetrates even to men's private affairs.

In his fifth chapter, headed "Insane and not Dangerous," Dr. Bucknill shows what he regards as the absurd contradictions between the common law and the lunacy statutes, on this subject. The idea of "safety" is the sole object of the common law in confining insane persons—to protect society and individuals from physical danger. The purpose of remedial treatment does not enter into the scope of the common law. Therefore, there is no common law authority for confining and detaining any harmless or "not dangerous" lunatic, and a person might be liable, under common law, in damages, for turning the key upon such a person.

All this is, doubtless, as Dr. Bucknill shows, the legacy of early days, before the system of remedial treatment was developed, when lunatic asylums were mere prisons, and the thought of custody was uppermost in the minds of the guardians of public safety. It would be absurd to apply such a principle now. In the trenchant language of Dr. Bucknill: "That such a law can not be executed, is obvious. It is smothered in its own absurdity, as regards the proper treatment of the insane at home, and only on account of its application to patients detained in asylums, is it important in its antagonism to the direct operation of the statutes." Such law would be saying that a lunatic asylum must revert to the condition of a century ago. The interest of society requires something more than mere protection from physical violence. Public policy dictates that human life and human activity should be preserved and should be utilized as far as possible. Modern social science looks not merely to the protection of society from actual violence and personal danger, but it anticipates and seeks to avoid the conditions

that lead to these evils. Hence, remedial treatment for a disease which renders a person incapable of self-direction and fulfilling his relations to society, comes within the legitimate scope of statutory enactment. Dr. Bucknill would make such treatment, as far as possible, depend on voluntary acceptance in the case of such patients, at least, as might be rated "harmless" or "insane but not dangerous." At the same time, he points out, very shrewdly, in commenting upon a statement of the Lunacy Commissioners, that it is a mistake to use the word "harmless" as the opposite to the legal term "dangerous." A man is not harmless who is liable to inflict any kind of mischief upon others or upon himself. The statute recognizes, to some extent, the moral element. "A man, at the present day, who went about town babbling, not of green fields, but of family secrets, would certainly not be harmless," says Dr. Bucknill. Yet a man may come under this description who would not be regarded as dangerous to the community, in a legal sense.

It may be, as Dr. Bucknill urges, necessary or expedient to have new enactments to bridge over this hiatus between the common and statute law; but, for ourselves, we confess we hardly see how it is to be done. Although the antithesis is not exactly between "harmless" and "dangerous," yet the common instinct of insecurity in the presence of an insane person, which prevails in the popular mind, is simply due to the indisputable fact that it is impossible to tell what a human will, not directed by human reason, will do, or where, when, or how it may break forth. No statute can define a harmless person, unless, perhaps, it should relegate him to the lowest or most helpless stage of dementia. Even in many cases of insane persons, after long trial, giving strong presumption of harmlessness, sudden

manifestations of delusion, secretly cherished from the first, but disguised from most searching observation, have often confounded all calculations which were made upon a theory of more free and liberal treatment in some kind of domestic life. It would hardly seem worth while to run great risks, and make great sacrifices to carry out a mere theory, which hardly bears the test of *a priori* reasoning. Of course, in all institutions where a proper system of classification is followed, one of the complaints set forth that really quiet and harmless patients are necessarily associated with the dangerous, could hardly be sustained. There is no doubt that practical administration has secured, in asylums, many relaxations of the former stringent restraints imposed upon the insane, and improvements are continually made, rendering both residence and treatment, less of the mere asylum, and more of the hospital character, and this is what Dr. Bucknill strongly urges. As freedom is felt to be safe it is not denied, but in this matter it is even more true than in the political sphere, that "eternal vigilance is the price of liberty." Culpable carelessness should not be allowed to creep in under the guise of a more humane regard to the mere feeling of personal independence and the self-respect which it is supposed to generate. The far larger proportion of the acts of violence, murder and suicide, which are committed by the insane, are committed at their homes and in society at large, and that, too, when their supposed "harmlessness" prevents all necessary precautions being taken.

The history of this subject is full of illustrations. We need not go further back than the April number of *Winslow's Journal*, Vol. 2, 1876, article "*Quis Custodiet Custodes*," to show that lunacy has not changed, and that it is still unsafe to trust to the common idea

of lunatics being "harmless and not dangerous." One can hardly point to a public asylum that does not contain cases, where persons who have been living quietly in their families, even timid women, have attempted, and even committed the most deliberate and terrible homicides. We could give a large list from personal experience, but this is unnecessary, as most of our readers will have such unfortunate instances within their own recollection.

There are certain expressions which, perhaps, we ought to notice, in a book that is itself intended to be critical. These are phrases, unnecessarily strong, which are used in characterizing asylums or asylum treatment, especially as the author advocates asylums as a scheme founded in the very necessities of the disease. We deprecate the terms "asylum lunatic," "asylum brand," "asylum imprisonment," &c., as though any possible shade of degradation should attach to an individual, who, laboring under disease, is obliged to be controlled by the State, in certain institutions! As an illustration, perhaps among the mildest, Dr. Bucknill says, page 34, "when domestic care and medical supervision and treatment, implying some control but not much, are *insufficient* for the *requirements* of the case, and the patient has to be made an asylum lunatic, the sanction for that which no disguises can make anything less than the loss of liberty by imprisonment, ought surely to be that of the State speaking through one of its public servants."

Though it is true, as an abstract proposition, that all detention beyond the will of the individual is "the loss of liberty by imprisonment," it is not true that the deprivation of liberty of the insane, for their treatment and recovery in an asylum, is, in any sense, "imprisonment," as that term is used in law or ordinarily. It is

not necessary, for understanding the matter, to so characterize it, especially as in the same sentence the author takes pains to gloss over the domestic "imprisonment" as "some control but not much."

Many years ago, the writer was visiting a county institution, with the superintendent of the poor, and discussing the proposition of the removal of children from poor houses to orphan asylums or the care of private families, and while talking with the official in the presence of some children, he used the term "poor house," frequently; and one of the children interrupted and said: "Mamma says we ought to say "county house," not "poor house!"

We have seen cases confined in private families, where we have been painfully impressed with the fact that the home was simply transformed into a place of more rigorous confinement than an asylum. We fully agree with Dr. Bucknill that a large class can, and do recover in their own homes; but, while admitting all this, we should be cautious as to the retention of suicidal cases and persons having delusions of suspicion, conspiracies, &c., as all these are dangerous to themselves as well as to others.

There are other points of value in this book, treated in the Doctor's vigorously suggestive style, which we should like to notice, but we must content ourselves with calling attention to one point of more than ordinary or passing interest.

Dr. Bucknill would simplify the whole business of supervision and inspection of the insane, by getting rid of the Commissioners in Lunacy. To use his own words, in giving part of the contents of the last chapter: "The Board of Commissioners in Lunacy should cease to exist; the commissioners being distributed between the local governing board for the super-

vision of destitute lunatics, and the Lord Chancellor's officers for the supervision of all other lunatics."

He would provide State institutions for all the insane, to put them under the direct care and administration of local boards. He would deal with the insane in two classes and provide for them separately; one the independent or paying class, the other the paupers. In his preface to the book we have presented his scheme in regard to "the upper and middle classes," whether they are simply paying patients, who are placed in institutions on certificate, or are there under the authority of the Lord Chancellor. It is thus he finally sums up the matter in his closing chapter:

"But what to do? In the first place, I may broadly state my opinion that no change of the law can be satisfactory which does not contemplate the eventual abolition of all proprietary lunatic asylums. The deprivation of the personal liberty of any of the Queen's subjects is an affair of the State, and must only be undertaken by the State. From that axiom there must be no flinching. Such asylums as I have last described may survive, under some other name, as voluntary retreats for persons of defective or damaged mind. For lunatics who must be confined against their will, asylums ought to be provided by the State, and managed by boards of governors. Moreover, the care and treatment of quiet and harmless cases of insanity, by the open medical profession, in domestic life, as single, or double, or treble cases, ought to be encouraged by the law and its administrators, and not discouraged, as it is at present.

The discussion of the large question of certification may well be postponed to another opportunity, only I may observe that I think that no modification of the present certificate system will suffice to make it safe to the practitioner, or satisfactory to the public. The medical man ought to be put firmly upon his right footing, as the exponent of scientific opinion; and the action taken upon so grave a matter as that of depriving a man of his liberty, ought to be no less than that of the civil power, whatever may be determined for the best as to the judge, or to the court, or to the form of inquiry.

Moreover, great changes are needful in the administration of the lunacy laws. The Commissioners in Lunacy are administrators in the Metropolitan district, and inspectors only in the remainder of England and Wales, and it is very certain that the worst asylums to be found in the country are under their immediate jurisdiction. If their board is to survive a thorough reform of the lunacy laws, they ought, at least, to resign the control of the Metropolitan asylums, and to install the justices of the peace of the counties of Middlesex, Surrey, Kent and Essex, in the same authority which the justices of the peace possess in all other counties, the commissioners themselves exercising everywhere an uniform power of inspection, report and superintendence. But a more extensive change is still more needful and important, which would render needless this local and partial change. There are socially and logically but two classes of lunatics in the community, those who are destitute and those who are not, and there ought, accordingly, to be only two authorities to administer the lunacy laws, and two laws for them to administer as they severally regard these two distinct classes of the insane. The present division of authority between the Lord Chancellor's officers in lunacy, the Commissioners in Lunacy, Local Government Board and the Boards of Guardians, the Visiting Justices of County Asylums and the Visitors of Provincial Licensed Houses, the Boards of Clevedon and Caterham, &c., is intricate, confused and mischievous. Instead of this the Local Government Board, or the Minister of Health, whenever he may be appointed, ought to be placed in authority over all subordinate authorities, having control over the care and maintenance of all destitute lunatics, and the Lord Chancellor's officers in lunacy, or to speak with more technical accuracy, the Lord Chancellor, with all his subordinate officers in lunacy, under the Royal Prerogative, ought to have authority over all other lunatics and persons charged with their care and control. This change would leave no sphere of action for the present Board of Commissioners in Lunacy, the members of which might well be distributed between the two new and enlarged authorities, half of them going to the Local Government Board and half of them to the Lord Chancellor. Upon this broad basis the details of lunacy law reform could be built up with symmetry, science and effect; but, without some broad basis of this kind, founded upon a logical principle, any reform of the lunacy laws which we may expect will be but some tinkering of the old pot, where the light of day most inconveniently shines through its rust-eaten sides."

There is nothing personal in this book. It is simply a strong and earnest protest against the "system" of legalized private asylums existing in England, and an advocacy of State asylums for all classes. It is written with that fervor which nothing short of deep convictions could generate. Dr. Bucknill has many personal friends among those whom this book apparently assails, who will feel the tremendous blows which he delivers against the system; but those who know him will not accuse him of writing in malice, or for power, or for private ends.

PSYCHOLOGICAL RETROSPECT.

FRENCH PSYCHOLOGICAL LITERATURE.

Annales Médico-Psychologiques, November, 1879.

(1.) REPORT OF THE TRANSACTIONS OF THE SECTION OF MENTAL MEDICINE AT THE MEDICAL CONGRESS OF AMSTERDAM.—BY DR. BILLOD, SUPERINTENDENT OF THE VAUCLUSE ASYLUM.—MECHANICAL RESTRAINT.—This report was read by Dr. Billod, last October, before the Medico-Psychological Society of Paris, and it forms by far the most interesting feature of this number of our contemporary. Great prominence is given to the subject of mechanical restraint, that "*questio vexata*" of modern alienists, and we would fain put on record the views of an eminent Frenchman, who seems to be so much in harmony with ourselves.

After stating that he vacated the chair of the section in favor of Dr. Rist, in order that he might participate in the debate, he thus formulates the conclusions of the address:

1. The rational application of the principles of non-restraint ought to be adopted as the general rule in the treatment of the insane.

2. Asylums for the insane ought to be constructed on these principles, and their medical and administrative services organized on the same basis.

3. Principal conditions: A suitable location of the asylum, extension, section and division of the quarters adapted to the system of non-restraint. The physician ought to be the doctor-in-chief of the internal administration. A sufficient number of intelligent attendants. Scrupulous prevention of over-crowding in asylums.

Dr. Billod argued the question in this wise:

“Assuredly nothing is better than the system of non-restraint, and nothing seems to me more praiseworthy than the efforts everywhere made to apply it. But I belong to those who believe that its application involves certain exceptions, and if I admit it, it is, I repeat, as the *general* and not the *absolute* rule. In the first place I lay stress on the statement—and that without wishing to raise a dispute as to the mere import of words—that that which is called non-restraint is simply a fiction, that this system in no way implies the abolition of restraint, and that it only tends to the substitution of one method of restraint for another, that is to say, of the restraining influence of muscular force or seclusion in a cell (solitary confinement of the English) for that of the camisole. This being so, the entire question resolves itself into a correct understanding as to which of the two methods of coercion, in other words, which of the two restraints, is to be preferred. On this point, I think I may say that opinion is divided. Some, whilst admitting that in the great majority of instances it is well to restrict the use of the camisole, believe that there are cases in which one could not avoid having recourse to it, without incurring a flagrant danger to personal safety, including that of the lunatic himself. There are those who even go so far as to pretend that lunatics are more frequently the objects of bad treatment on the part of attendants, in precisely those cases where the least recourse is had to the camisole.”

In this connection, Dr. Billod quotes a paragraph from the report of the Dutch Commissioners in Lunacy to the Minister of the Interior, from which it appears that the discharge of employees from their asylums frequently occurs on account of their ill-treatment of patients, and he wonders if this circumstance may not be due to a too rigorous application of the non-restraint system.

“Muscular force,” he continues, “according to the adversaries of non-restraint in its too absolute application, is a force the employment of which it is not always possible to gauge in a given case, and when used to restrain furious or impulsive lunatics, the attendants may always be tempted to pass the limit which separates force from violence. They add that the use of the camisole,

which permits a furious and excited patient to expend his agitation '*en plein air*,' in a court, is more favorable to his general and special hygiene than confinement in a cell. Others think that in all cases the use of the camisole ought be proscribed: they admit no exceptions, and in cases where the patient presents a very decided suicidal tendency, which permanently imperils his own life, they do not hesitate, in order to insure his surveillance during the night, to have an attendant, male or female, as the case may be, share his or her bed."

Dr. Billod then goes on to say that he himself inclines to the former opinion, that his feeling in the matter has undergone no change since he visited England in 1861; and, in further elaboration of his argument, he introduces, as a long parenthesis, a report which he made on his return to France. He explains that there exists greater accord between France and England in this matter than is generally supposed, that both countries adhere to the principle of non-restraint, and endeavor to apply it according to their means and within the limits of possibility, and that it is this limit alone which constitutes the difference between them. And here we would again use his own forcible language:

"Non-restraint consisting, as it does, much less in the abolition of coercive measures than in an organization of asylums such that their application becomes useless, the main difference existing in this respect between the two countries must be the result of a difference of organization. * * * * It exists in the fact of the relative predominance of the cell and the common dormitory, a predominance which in England is such that in certain institutions presented as the *ne plus ultra* of special organization and as models of their kind, there is no dormitory, and each patient has his cell or isolated chamber."

And such being the case, he declares that nothing can be simpler than to make the lunatic enter his cell whenever his delirium assumes a dangerous character. We can not but think, however, that the use of the word "cell" in this passage and others, is

somewhat unfortunate, since efforts are said to have been made in England to render these seclusion-rooms agreeable and cheerful, so that they may partake as little as possible of a cell-like character.

Dr. Billod does not forget another important difference between the two countries, and in allusion to it he shows a keen appreciation of the British character. We refer to the higher order of attendants in British asylums, a superiority in virtue of which they are enabled to inspire their charges with greater respect than is the case in French asylums. The very name of "attendant," he thinks, is one of the best evidences of the greater consideration in which they are held by English physicians. "Indeed, such is the respect of the English for law and the principle of authority, that their humblest representatives, policemen, for instance, are vested in his eyes with a sacred character, so to speak, which imposes on all respect and submission." And he attributes much of the British attendant's success to this circumstance. This gives color to a statement made by Dr. Walker before the Association of Superintendents, in 1874, which has been the subject of attempted ridicule on the part of those who advocate non-restraint. He then said: "I suppose if anything has been settled to the satisfaction of the members of this Association, it is that, in this country, our patients, by original temperament, or by some inherent quality in the universal Yankee, will not submit to the control of any person they consider their equal or inferior as readily as to that of mechanical appliances."

Proceeding to a discussion of the differences between French and Dutch Asylums, Dr. Billod makes a statement which we were not a little surprised to hear. We are told that in the five asylums which he had occasion to visit in Holland, he did not see a single camisoled

patient. Nay more, he was informed at Meerenberg, by Dr. Persijns, that there was not a camisole in his institution. But here again Dr. Billod gives proof of that same introspection which served him so well in England, and he suggests an ingenious reason for that greater docility of Dutch patients which renders possible such an entire absence of mechanical restraint. This theory, which, by the way, applies with equal force to Swiss asylums, is that, as the result of the custom of administering food five times a day, the patients are in a state of *permanent* digestion, and that therefore, as the result of the derivative action of the process on the brain, they manifest little disposition to become excited. He speaks, too, of the probable production of a similar effect in England by a roast-beef, beef-steak, and ale-and-porter dietary, a regimen which may, he thinks, in a measure account for British phlegm, which latter, according to him, is nothing more than a mental depression. In cursory allusion to the tobacco-loving qualities of the Dutchman, he takes into account the narcotic and depressing influence of the weed in this connection.

But there is one great inherent difference which seems to us, as it does to Dr. Billod, to afford a much more satisfactory explanation of the comparative needlessness for restraint in Holland. It is the essential difference of character which distinguishes the two nations, for whilst excitement is peculiar to the one, depression is the normal state of the other; "in the one, imagination is the dominant faculty, whereas in the other, it is that of the will." Thus he accounts for the prevalence in France of insanity with excitement, whereas in Holland, insanity with depression predominates. He declares to have seen less excitement at Meerenberg than in the quarters for quiet patients at the Vacluse

Asylum. In conclusion, Dr. Billod gives a detailed account of the stupendous difficulties which the Dutch have had to surmount in their encounters with the sea, and in doing so, pays a glowing tribute to their indomitable perseverance, their unswerving tenacity of purpose. And by a just appreciation of all these conditions, he explains that settled calm, which even the ravages of mental disease fail appreciably to ruffle, and which renders possible of application, a system which can not be adopted, to the fullest extent, in France. We have read Dr. Billod's remarks with pleasure and profit. "*In medio tutissimus ibis*" is evidently his motto, and it seems to us that, in his lucid exposé of the issues of this great question, he has established his position on an unassailable basis.

At the close of the discussion, a motion to include a sufficient number of seclusion-rooms among the "principal conditions" already enumerated, was adopted by the meeting.

We have entered so much into the details of Dr. Billod's report, in its reference to mechanical restraint, that we are compelled to give but a short notice of its other features.

INSANITY AS A MOTIVE OF DIVORCE.—Dr. Van der Swalme made a communication on this subject, at the conclusion of which his views were thus summarized:

1. The reasons which, from a religious, moral or practical point of view, seem to plead in favor of insanity as a ground for divorce, are inadequate.
2. From a medico-legal point of view we should read, instead of insanity, *chronic, incurable insanity, with loss of memory*.
3. Patients in this category will be all the more rare, as their affection frequently causes a premature death.

4. It seems dangerous to impose, however carefully, for the benefit of the small number of survivors, conditions of divorce, which might aggravate the sufferings of a greater number of unfortunates.

5. It appears from these considerations, that insanity does not constitute a ground for divorce more valid than several other infirmities and diseases which mar conjugal happiness.

CLASSIFICATION OF MENTAL DISEASES.—Dr. Van der Swalme was followed by Dr. Van der Lith, who presented a paper with the title “Is a classification of Mental Diseases necessary, and on what basis ought it to be established?”

CATATONIA.—Dr. Donkersloot then addressed the section on catatonia, and discussed its etiology and treatment. His views are thus formulated:

1. It is useful to combine, under the name of catatonia, a certain number of cases, presenting as their chief symptom, an inability of action, which must be referred to that portion of the brain which presides over motion.

2. Inasmuch as catatonia frequently accompanies or complicates various nervous diseases, such as catalepsy, hysteria, epilepsy and melancholia with stupor, it is impossible to make a special etiology, or indicate a distinct treatment.

From the discussion which followed, it appears that the general opinion of the meeting was that “catatonia” ought not to be regarded as a special form of insanity, but rather as a symptom.

The following motion, proposed by Dr. Remaër, was unanimously adopted: “The Section of Psychiatry desires to express its acknowledgments to the Executive

Committee for having added it to the other sections, and begs the Congress to decide, in General Assembly, that all future sessions shall have their psychiatric section."

Dr. Billod himself read a paper on the Management of Insane Asylums in France, but as it was intended solely for foreign ears, no account is given of his views in the *Annales*. Of considerable interest are Dr. Ramaër's remarks on the duty of the State to the insane. He takes the general ground, so largely held in England and the United States, that they ought to be under State surveillance.

After the discussion of other papers, Dr. Petithan proposed the following motion, which was unanimously adopted: "The Section of Psychiatry is of opinion that a law should be established against alcoholism, and temperance asylums established for the treatment of chronic alcoholism in virtue of such law."

(2.) **CLAUSTROPHOBIA.**—BY DR. BENJAMIN BALL, CLINICAL PROFESSOR OF MENTAL DISEASES OF THE FACULTY OF PARIS.—The article gives an interesting account of two cases of this curious affection which have come under Dr. Ball's personal observation, and others are referred to. In one of these cases the patient's paroxysm of fear was such that, yielding to an uncontrollable impulse, while making the ascent of the tower of St. Jacques, with her family, she rushed headlong down stairs, and dashing her head against the wall in her wild career, without, however, experiencing any pain, did not stop till she had gained the open air. "No sooner did I reach the bottom and have access to the open air than the crisis vanished as if by magic, and I breathed briskly as though I had come out of a pit."

Dr. Ball makes mention of the proposal of Dr. Beard, of New York, to include this pathological condition with agoraphobia, and some other kindred manifestations, under the name of "topophobia," but it seems preferable to him to reserve for each its special name; later, he thinks, we shall be better able to appreciate their relation to each other. The article concludes with the following summary of his conclusions:

1. There exists a special form of delirium, characterized by a "fear of closed spaces."

2. It involves a true psychosis, and not a mere sensorial affection, notwithstanding the patient may be conscious of his delirium.

3. It seems to me convenient to designate this condition under the name of "claustrophobia," for this expression, though scarcely correct from an etymological point of view, has the merit of perfect clearness.

(3.) ON A SECONDARY SYMPTOMATIC ELEMENT OF MELANCHOLIA AND ITS TREATMENT.—BY DR. HILDENBRAND, MEDICAL SUPERINTENDENT OF THE CHARITE ASYLUM, (NIEVRE).—In this contribution to the literature of melancholia, Dr. Hildenbrand has presented an article of practical as well as theoretical interest. Recognizing our inability to put our finger on the primary lesion, he thinks we may attack, with good chances of success, the secondary accessory or conjoint elements of the disease. These latter are imperfect respiration and consequent cerebral congestion. He begins by reviewing the physiological anatomy of the brain, and thus presents the conditions which favor congestion:

"On the one hand, the upward course, towards the superior longitudinal sinus, of the veins of the convexity of the brain and of the internal surface of the hemispheres; the ascending flexure described by the veins of Galen before they reach the origin of the

right sinus; the horizontal or ascending direction of the veins at the base of the brain and cerebellum, which pass on into the cavernous or lateral sinuses, are so many conditions which compel the blood to contend against gravity. On the other hand, the venous branches which open into the sinuses, follow a retrograde course; we mean that the column of blood which they contain comes in forcible contact with another column of greater volume which moves in the opposite direction."

The author then goes on to show how this tendency to engorgement is counteracted by the admirable mechanism of respiration. As the result of the pumping action of the inspiratory movement, the venous blood flows with greater rapidity into the right auricle. The blood from the interior of the cranium is thus returned to the heart by the jugular vein, and the sinuses are emptied. Moreover, the internal jugular vein receives the anterior condyloid, and with this latter anastomose the anterior longitudinal veins or vertebral sinuses. In this way inspiration, whilst emptying the sinuses of the dura mater, at the same time disgorges the medulla.

That the melancholic's cerebral circulation is materially impaired, Dr. Hildenbrand thinks is evident from his horror of movement. His cardiac action, too, is enfeebled, and his respiration, instead of being to the circulation as one to three, is not more than as one to five. We are reminded of his "bluish complexion, of his cyanosed lips and of the coldness of his skin," all pointing in the same direction, that of imperfect hæmatisation. Dr. Hildenbrand shows how naturally insomnia results from this hyperæmia, but we do not concur in the view that the brain is in a condition of special anæmia during sleep, and our reasons for this difference of opinion have already been given in these pages. "It seems, indeed," says he, "to be now proved by the observations and experiments of Blumenbach, Durham,

Hammond and others, that the condition of physiological sleep is relative anæmia of the brain." This is, however, of little importance here. So much for his theory and its anatomico-physiological basis. Let us now briefly notice the practical aspects of the paper. We are told that we must make our melancholic patient breathe, and we are again reminded of the relationship existing between the circulation and respiration in the reflex movements of sighing, sobbing, laughing, etc., and of their use in the economy. In answer to the question how we are to force our patient to breathe, the author suggests three methods: manual labor, respiratory gymnastics and forced marching.

We all know how averse the melancholic is to labor of any kind, but much can be done by coaxing and encouraging, and we must satisfy ourselves with small results at first. The kind of work recommended by the author is that which calls for extension of the patient's arms. And even the use of respiratory gymnastics demands the intelligent co-operation of the patient's will; we are told, however, that in very many anxious cases he will yield to well-directed efforts to interest him in the treatment of his case. The following instructions are given:

"When the patient is docile, you place yourself before him and tell him to imitate you, to raise his head, throw back his shoulders and breathe deeply. In the majority of cases more direct intervention is necessary, and we must briskly elevate and lower the arms; the elbows are lightly seized and brought towards each other from behind, in order to throw back the shoulders, whilst the patient executes the inspiratory movement. If we continue to bring together several patients of the same class, the contagion of example will stimulate their will and facilitate the physician's task."

It is stated that, under the influence of this gymnastic exercise, all the symptoms of venous stasis

rapidly disappear. It seems that a similar mode of treatment has been adopted in orthopedic cases, by a Marseilles surgeon, Dr. Dubreuil, with wonderful success, and its author deprecates the traditional mechanical modes of procedure as "barbarous, useless and dangerous." Dr. Dubreuil's treatment is directed to the elongation of the contracted spinal muscles, and by means of these special energetic movements, he compels the patient to inspire vigorously. The effect of these exercises on the general health is said to be "happy and rapid." Dr. Hildenbrand predicts a like success as the result of the adoption of his method of treatment in melancholia: "the disgorgement of the sinuses, the improved condition of health in consequence of the restoration to the blood of its physiological properties, will contribute to the cure of the primary disease of the nervous centers."

Should it be impossible to induce the patient to work or undergo these respiratory exercises, we are advised to have recourse to rapid and forced marching, repeated at short intervals through the day, for a few moments at a time.

But one case is cited in illustration of this mechanical treatment. A few days after the woman's admission to the asylum she was subjected to respiratory gymnastics; she submitted willingly, and, carrying out the physician's injunctions, walked the court during the day, executing all the while strong respiratory movements. From the beginning her complexion became clearer, and a slight suffusion of the face was observable. This treatment was continued for eight days, when the patient effected an escape from the asylum by scaling the walls. Leaving at six in the morning, she ran all day and night, and reached her home at three o'clock on the following morning. The dis-

tance accomplished was twenty leagues in twenty-one hours! She is brought back to the asylum, but now her condition is changed. She still weeps and wails, but there is no delirium. She begs to be allowed to return to her husband and child, declaring that homesickness alone is her trouble now. We are not told how long she remained in confinement, but she finally returned home alone by rail. Two months afterwards, the following information was received: "Mrs. C— is better; she is perfectly tranquil; her reason is good; she applies herself better to work. It seems, however, that she manifests a disinclination to occupy herself; she says she can not. Her physical health appears to me to be vastly improved." And two months later: "I am happy to be able to inform you that Mrs. C— improves daily. She is much more tranquil. She works and occupies herself well, devoting more of her time to her household duties."

Dr. Hildenbrand's suggestions are, however, not entirely new. Many years ago, Dr. Kirkbride, of the Pennsylvania Hospital for the Insane, introduced calisthenics as an important element in the treatment of melancholia, and the practice is maintained to this day in his asylum. A similar method of treatment was adopted in the Utica Asylum about twenty years ago, but discontinued, after a trial, in favor of lighter manual labor, such as is generally performed by asylum inmates.

(4.) CLINICAL ARCHIVES.—HÆMATOMA AURIS.—Dr. Christian, of Charenton, reports a case of hæmatoma auris coincident with purpura hæmorrhagica occurring in a general paralytic, and in view of a theory that hæmatoma auris is the result of a change in the constitution of the blood, he suggests a possible connection between it and the concomitant purpura.

GENERAL PARALYSIS OF RAPID COURSE.—Dr. Mabile, of the Blois Asylum, gives the history of a case of general paralysis, the main feature of which is its rapid course. The patient, in whom insanity had occurred suddenly, manifested but slight intellectual troubles for three months, when, on the invasion of symptoms of melancholia, his disease assumed an acute form, and death occurred in six weeks. Up to the time of his death, the patient, in spite of his greatly enfeebled condition, was able to exercise an enormous amount of muscular force. Intellectual disorders constituted the predominating element in this acute form of general paresis.

CYSTICERCUS OF THE BRAIN.—Dr. Baillarger, of la Salpêtrière, contributes a case in which cysticercus of the brain was the starting-point of an attack of general paralysis, and premises his remarks by expressing a doubt whether the same effective cause has been hitherto observed. The prominent symptoms were: intense headache during the four years preceding the attack; embarrassed speech; impaired memory; hallucinations of sight; congestion with transient hemiplegia; and later, aggravation of all these symptoms. It is interesting to note, in connection with the attacks of hemiplegia, that they occurred exclusively on the right side. The cysticercus, which was about the size of the end of the little finger and had a diameter of nine millimetres, was found on the right hemisphere, at the union of the posterior with the middle lobe and above the corpus callosum. Attention is directed to the intense cephalalgia, the impaired vision—one of the first symptoms—and the hallucinations of sight which occurred later in the disease.

We may remark that of Küchenmeister's eighty-eight recorded cases of cysticercus of the brain, *epilepsy with symptoms of paralysis* occurred in fifteen instances. (Ziemssen's Cyclop., Vol. III, p. 611.)

(5.) REPORT OF THE INSPECTORS GENERAL OF INSANE ASYLUMS TO THE MINISTER OF THE INTERIOR, 1876.—ANALYZED BY DR. MOTET.—Dr. Motet continues an analysis which he began in the September issue of the *Annales*. He expresses his hearty approval of that portion of the report in which the Inspectors General insist that the medical superintendent ought to be the acknowledged head of every insane asylum. Their remarks on the subject of attendants are interesting, and go to show that we possess, in America, a better class of men than is generally obtained in France. Dr. Motet says, in his analysis:

"It is but too true that there are, in all asylums, servants of mobile character, unclassed citizens who settle nowhere and whom one would be glad not to engage. For this class of worthless employees, it is of importance to substitute servants on whom reliance can be placed. In order to accomplish this, it would be necessary to increase their salary, and insure the future of those who shall have devoted their lives to the insane, by thus enabling them to retire. Nothing more would be necessary to retain their services, to establish in our asylums an important nucleus of men devoted to duty; and, in elevating their arduous profession, in manifesting a lasting interest in their well-being, good men would be less tempted to go elsewhere in search of more lucrative employment. The administration would benefit by such action no less than the patients."

The proposal to appoint, as *internes*, after competitive examination, to positions in insane asylums, medical students, from whose ranks assistant physicians might be afterwards recruited, is highly spoken of. As regards seclusion and mechanical restraint, the views of

the Inspectors General are substantially those of Dr. Billod, which we have already presented.

“In England, non-restraint has been elevated into a system, and its application conscientiously observed. In Germany, at the present time, if not in all asylums, at all events in some, coercive measures are almost abandoned. In France, we have not generally adopted this system, and, although it has partisans who have been very sincerely convinced, it is still the custom to restrain obstreperous and dangerous lunatics with the aid of the camisole. We think that the truth lies between the two opinions, that to systematically proscribe the camisole is to deprive ourselves of a method of restraint preferable to the arms of attendants. Absolute non-restraint multiplies the chances of aggression in consequence of the strife which it engenders, and we prefer a material obstacle against which the patient’s resistance exhausts itself, to the use of physical force against which he rebels and defends himself. But we are free to admit that abuse is reprehensible, and that with a well organized surveillance it is possible to reduce the number of patients under restraint to a minimum.”

In speaking of the wholesome influence of work and the utilization of the various aptitudes of an asylum population, the question of suitable remuneration is mooted. The commissioners are of opinion that the patient ought to receive some slight recompense for his labor—a sum of money which might be handed to him on his departure from the asylum—and that we might thus permit him to gratify a pardonable whim. “We have here a moral means which acts powerfully on certain natures; with others the effect is not so marked, but, were no other result obtained, save that of provoking a childish joy, it ought not to be despised.”

Various methods of forced alimentation are discussed. An ingenious instrument devised by Dr. Billod, the silver mouth, (*la bouche d'argent*), which, by means of a valve opening from without inwards, effectually opposes the rejection of food after it has once been introduced, is highly recommended. In view of the more frequent

use of the œsophageal tube, its recent modifications are explained. Our own experience in the Utica Asylum has been that the tube and funnel, by means of which liquid food can be introduced into the stomach by simple gravitation without any further mechanical appliances, usually answers every indication. We have found this method of great service, too, in cases where the patient, though willing to take nourishment, eats too little; in paralytic conditions of the throat; and in cases of pharyngitis, where the least movement of the parts concerned in deglutition causes the patient pain. Filipp, of Milan, employed electricity to compel the patient to open his mouth, and this plan is said to have been very efficacious.

The Inspectors General favor the adoption of a system of temporary discharge from the asylum during which patients might be on trial, such discharge not to be mentioned in the registers kept according to law. They are fully alive to the great divergence of opinion on this point, but they only view the matter from its humanitarian aspect, and would simplify the conditions of return, in the event of a speedy relapse, especially in the case of indigents whose families have little time to spend in the slow and difficult methods of procedure which admission to an asylum involves. In all cases, they think, it would be necessary to fix a limit of time which could not be exceeded without the discharge becoming definite.

We are reminded of the great value of those humane societies which provide the discharged indigent lunatic with funds wherewith to maintain himself, without care of the morrow, until he shall have obtained employment. Such a society exists in Paris, a second is in the department of the Meurthe, and the Inspectors General recommend their multiplication throughout the

country. We have already referred to similar philanthropic institutions in London, in a former number of this JOURNAL, and we would add here that the statutes of the State of New York provide very liberally for such contingencies, by authorizing the steward of any of the asylums, upon the order of two managers, to furnish money, not exceeding twenty dollars, to defray the patient's necessary expenses till he can have a chance to earn his subsistence.

We have thus attempted to notice some of the salient features of this valuable report, but it contains many more matters of interest to the American alienist which lack of space prevents our mentioning, embodying, as it does, the views and experience of such eminent specialists as Drs. Constans, Lunier and Dumesnil.

Annales Médico-Psychologiques, January, 1880.

(1.) A RETROSPECT OF MENTAL MEDICINE.—BY DR. BENJAMIN BALL.—This is an opening lecture, delivered in Paris, by the newly-appointed clinical professor of mental diseases of the Faculty, and, as suggested in the title, it carries us over centuries of work in our special department of medicine. We will not follow Dr. Ball in his historical sketch of insanity in ancient and medieval times, but, beginning with Heinroth, it may be profitable to notice the eloquent address in its reference to more modern periods of thought. "His doctrines are at total variance with modern opinion, and it is precisely because of this opposition that he interests us as the most accomplished representative of a race of powerful minds, which is to-day almost extinct." The lecturer passes on to the consideration of a new element which appeared on the scene at that time and began to "assume its place and command," to wit, conscience.

Heinroth tells us that when we allow ourselves to be guided by conscience, a wondrous harmony establishes itself between us and the external world; that there is unity in the life of man because there is conformity with his mission, that wherever conscience reigns all is peace. He concludes from this that health is nothing more than harmony of thought and desire, accompanied by the enjoyment which attaches to the normal performance of a function, and that, on the contrary, disease is but the result of a loss of this blessed unity of action:

“The man, then, who lives in himself knows how to withdraw from the external world, but he who allows himself to be seized by the world, is, on the other hand, driven hither and thither by desires of never-ceasing birth. He suffers, has fears, and the fruit of this painful delivery is passion.”

Hence the origin of intellectual troubles, he thinks: a diathesis without which external actions could not create insanity; and thus Heinroth was able to say that “madness is a disease of the entire being.”

The first manifestation of this disregard of conscience is selfishness, which brings with it a vague state of unrest and indecision, and the intellect, gradually losing its control over the individual, makes way for sensibility which ends by reigning alone and uncurbed. Now, only one element, we are told, is lacking in order to produce madness, namely, excitement. And here we have what Heinroth calls “the state of maturity.” “The loss of reason is nothing more than the permanent suspension of liberty, taken in conjunction with either a state of apparent health, or one of confirmed disease, and changing in its sphere of morbid influence, sentiment, intellect and will. Thus, loss of liberty is the dominant fact, absence of morality is the first cause.” And from this the inference is that the

best preservative against insanity is attachment to the truths of the Christian religion. Without neglecting the physical health of the patient, our treatment must be mainly moral; it must consist in a substitution of new faculties for those which have been maimed by insanity. In answer to the inquiry how it comes that so many of our vicious and criminal population do not fall a prey to insanity, Heinroth replies that "vice and insanity are but the goal of two divergent paths, which both have sin for their point of departure."

"One can more readily understand," continues Dr. Ball, "the vigorous opposition which such doctrines met with. The German materialistic school, which endeavors to prove that every species of insanity depends on physical lesions, had for its chief Nasse, the celebrated professor of psychiatry at Bonn. He was followed by Friedrich, Vering, Amelung and several other alienists. But the most vigorous advocate of the somatic doctrine is Jacobi who, in his ardor to discover the lesions of the insane, became, one may say, the founder of a sympathetic insanity. He seeks extra-cephalic lesions in order to justify the outbreak of insanity, which then becomes a simple manifestation of organic disease."

Schroeder van der Kolk is alluded to as Jacobi's successor, and we are reminded of his work, which he divides into cerebral and sympathetic insanity. We are informed that the somatic school has gained a complete victory; that its doctrines, as represented in Griesinger's text-book, are universally accepted in Germany; that psychiatry, in the words of Krafft-Ebing, has at last won a place among the natural sciences. As might be supposed, Dr. Ball expatiates on the teachings and influence of his two great compatriots, Esquirol and Pinel. To Pinel is mainly due the credit of having revolutionized the treatment of the insane, and we are told of the great difficulties which beset the path of this ardent reformer, and of the part which the French revolution played in the work. But the theoretical

side of Pinel's labors is equally valuable: it is spoken of as containing a veritable code of mental alienation, which code, modified in some points by Esquirol "governs us to this day."

He gives the following as a summary of Pinel's propositions:

1. Insanity, properly so called, is absolutely distinct from the delirium of acute disease.

2. There are no anatomical lesions: those occasionally met with are the effect, and not the cause of the disease.

3. The great remedy for diseases of the mind is seclusion, isolation. The ordinary means employed in the treatment of disease of the body, play here but a very secondary rôle.

4. The alienist must apply himself to the clinical study of mental disease, but in following the methods of the psychologist, and in applying to lesions of the intelligence, methods of medical observation.

For many long years the doctrines of these two great men held their sway. It was not until anatomy began to be more systematically studied, when the fallacy of the absence of anatomical lesion in insanity was pointed out, that a reaction began. In 1816, Rostan began his studies on cerebral softening, and he had such active disciples as Georget, Falret and Calmeil. About this time also occurred the greatest psychological event of the century, the discovery of general paralysis. The author duly estimates the value of Lallemand's investigations, but thinks that he has exaggerated the influence of spermatorrhœa in the production of insanity. Esquirol is credited with the creation of puerperal mania, and uterine affections are admitted to be to-day one of the best recognized causes of mental alienation. It was he, too, who suggested the possibility of a rela-

tionship between intestinal lesions and insanity, and Louis, we are reminded, inspired by this idea, attributed to the ulceration of Peyer's patches the delirium which frequently accompanies typhoid fever. This view, Dr. Ball thinks, would find few advocates at the present day, but the influence of the stomach and intestinal canal on the development of mental disease can not be contested. The part which affections of the liver, heart and lungs play as like factors, is referred to, and it is said that there is not a single point in the economy whose lesions may not betray themselves by a psychical disorder in patients already predisposed.

"If we add to this rapid and incomplete enumeration the discovery of the upward course of diseases of the spinal cord toward the brain, which transform ataxics and paraplegics into general paralytics and demented; if we take into account modern researches on the composition of the blood, on the state of the pulse in the insane, on the influence of diatheses and various physiological conditions on the manifestations of insanity, we shall no doubt understand that the axis of mental medicine is entirely displaced, and that we no longer gravitate around psychology."

Dr. Ball goes on to speak of his preceptor, Dr. Moreau, as an opponent of the view that true insanity is absolutely independent of, and distinct from, the delirium of acute diseases—the very keystone of Pinel's system. Dr. Moreau believes firmly that there is no radical difference between delirium and insanity. The reaction against isolation, Pinel's great panacea, is adverted to, and, in this connection, the attempts which are making in England to introduce family life as a new feature in the treatment of insanity, as advocated by Blandford and others, are also mentioned by the author.

Coming to the difficult question of classification, it is pointed out that, after all, we have made but

little progress in this direction since the days of Pinel. Among the glaring defects of our present nomenclature, and in deprecation of our attempts at circumscription, he instances the various psychical states which have been described under the name of mania. The patient is pictured, on the one hand, in a condition of extreme agitation, talking, yelling, tossing, spitting, uttering a confused and incoherent jumble of words, and constantly repeating the same expressions with quivering voice. Here we have a man in a condition akin to acute delirium, and we call him a maniac. On the other hand we have a patient whose intellect is manifestly more active than normal, of prodigious memory, eloquent, and evincing a remarkable quickness of perception. He, too, is insane, and we call him a maniac. "Who would dream of pretending," asks Dr. Ball, "that these two subjects are afflicted with one and the same disease?" And he proceeds to give further instances of the inconsistencies of such a nosology. That which we call melancholia is shown to be divided into two distinct groups: we have the "*mélancholie avec stupeur*" of Baillarger, and again there are melancholics who, in the midst of their sadness, manifest not the slightest tendency to stupor; and here, too, we have evidently to deal with two different diseases.

But in taking exception to the weak points of our classifications, Dr. Ball is careful not to propose another, admitting, as he does, the danger of attempting such an enterprise in this present age of transition. He confines himself entirely to the rôle of historian. Referring to the subject of physical lesions, he impresses on his hearers the impossibility of stemming the current which impels us to seek everywhere these material causes of mental disease. He also alludes to the great progress which has of late years been made in the field

of physiology, how it has revealed to us the important part which automatic phenomena play in all the functions of the economy. "The words *cerebral automatism* and *unconscious cerebration*," says he, "are the expression of a complete series of facts of capital importance, which are destined to play an immense rôle in psychiatry."

We are exhorted to become clinicians before all else, and thus endeavor to render ourselves worthy followers of Esquirol and Pinel; and, in concluding his address, Dr Ball expresses himself as follows:

"Finally, skepticism; and by this I do not mean that morbid disposition of the mind, which makes us receive all new conceptions with a vulgar irony, and which, in the long run, will do more harm to the true interests of science than the most childish credulity. I understand by skepticism that negative virtue, which consists in not accepting a fact without verifying it, an idea without discussing it, and which teaches us to yield only then when the mind is overwhelmed, and finally bends under the burden of proof: then, and only then, may we surrender, but with the conviction of having in no wise yielded to the allurements of imagination, and of having bowed only before the truth. In undergoing such discipline, we run the risk of not marching at the head of our age; but we have at least the satisfaction of not wearing mourning for those hypotheses whose explosion occurs so rapidly and whose existence is of so ephemeral a character.

Such, gentlemen, are the principles which I would impress on your minds, and which will control the whole tenor of my instruction. I am keenly alive to the difficulties of my task, but I approach it with confidence, sustained by the sentiment of duty, and fully conscious, beforehand, of all that sympathy which you are willing to accord to men of good will."

(2.) ON CERTAIN ACUTE SECONDARY VISCERAL LESIONS IN THE INSANE.—BY DR. E. DUFOUR, MEDICAL SUPER-INTENDENT OF THE SAINT ROBERT ASYLUM.—The author of this paper refers to his former contribution to the *Annales* in which the existence of these visceral lesions

was pointed out, and he recalls the fact that Brown-Séquard, Schiff, Vulpian, Nothnagel and other physiologists have shown that the same effect may be produced at will in animals, by irritation or destruction of certain regions of the brain, such as the peduncles, the pons, the medulla, when various affections of the pleura, lungs, liver, kidneys, stomach, intestines, etc., may be observed. It has also been established that these same changes occur as the result of mechanical irritation of the periphery of the brain. Reference is made to the frequent occurrence of pneumonia, without apparent cause, in general paralytics, and we are informed that the explanation is to be found in the various modifications in the texture and circulation of the brain, which are peculiar to paresis. And not only general paralysis, but epilepsy, and other forms of mental disease, whose seat is at the periphery, determine these distant organic changes. In 1876, Dr. Dufour showed them in the chronic state, and their relation to the brain was deduced from their greater frequency among the insane, but at that time he was unable to give the results of observation in acute cases, as has been done in the present article, nor was he able to trace so satisfactorily the relation of cause to effect.

He gives a series of ten cases, reported in great detail, in which these visceral changes occur as the result of "those multiple and vague lesions which are peculiar to mental and nervous diseases." Unfortunately this multiplicity does not permit the author to refer to each encephalic change its particular rôle in the production of the several visceral lesions. He ascribes importance to a disturbance of the function of the sympathetic in bringing about these morbid conditions. He also directs attention to the fact that the acute splanchnic lesions noted in his paper can not be attributed to

decubitus, inasmuch as they were 'observed as soon as the patients became bed-ridden: we must, therefore, disregard the element of hypostasis in considering their pathology. Finally, he says he has once more proved that subpleural ecchymosis is not a pathognomonic sign of death from asphyxia as was asserted by Tardieu, a fact of some importance from a medico-legal point of view.

ENGLISH PSYCHOLOGICAL LITERATURE.

The Brain, April, 1879.

(1.) THE RE-EDUCATION OF THE ADULT BRAIN.—The first number of volume second of our valuable cotemporary, opens with an interesting article by Prof. William Sharpey, on the above subject. Not a little interest is attached to the case, from the fact that the observations were made in 1823-4, and the article written in 1824, with a postscript, dated 1879, giving the condition of the patient subsequent to 1824. The patient, a lady, was married in July, 1823, at about the age of twenty-three. Her health for some three months following was good, after that time she had pain in her stomach and bowels; her appetite was bad, she began to lose spirit and ambition, and to sleep more than usual. Her condition in April following, is described as below:

“She had lost but little flesh, and by no means looked sickly; indeed she was little, if at all, changed in her appearance; all her external senses were sound, but her memory was impaired, and she was very inattentive to surrounding objects, which made her dull and absent in company. The sleepiness had been very gradually increasing, and was now arrived at such a height that, unless when conversing with another person, or engaged in some manual occupation, she fell asleep at all times, and in whatever situation or position she might be. When in this state her eyes were nearly

closed, she breathed softly, and, in short, very much resembled a person in natural sleep, except that when she happened to fall asleep in a position in which the body naturally requires to be supported, as for instance on a chair, she did not lean forwards or backwards as is commonly the case, but sat with her body quite erect, and her head gently inclined to one side. While in this state she was subject to frequent startings, during which she raised herself up, talked as if she were frightened, drew herself back as if to avoid something disagreeable, and then after a few seconds lay quietly down again without having awoke. What she said on these occasions, though quite incoherent, was yet always nearly of the same nature, and for the most part consisted even of the same expressions, which were those of great aversion or horror; of this she had no recollection when awake, nor of anything connected with it; and she herself remarked as something extraordinary that now she did not dream, although she used formerly to be very subject to dreaming. From this sleep she never awoke of her own accord, except to obey the calls of nature; and there was no other way of rousing her up upon other occasions, but by placing her on her feet and endeavoring to make her walk. When thus forcibly awakened, she was fretful, and cried for some time after. She took food in sufficient quantity, and often with evident relish; but it required much entreaty to make her take the first two or three mouthfuls. The pulse varied a little, but on the whole was nearly natural; during sleep it was commonly from fifty-six to seventy, and somewhat more when awake. Her bowels were very costive, and constantly required the use of laxative medicine; the discharge of urine was natural; the catamenia had hitherto been regular in their appearance, but in small quantity. She complained of no pain or other uneasiness, except a peculiar feeling in the top of the head across the bregma, which she called 'funny.'

This condition gradually became worse, and the difficulty increased daily, for some five weeks, at the end of which time she was almost constantly asleep, and so remained with a few short intervals, till the beginning of August. She took food when placed at her lips, and so with medicine, and made attempts to get out of bed when necessary to go to stool. At about this time the patient had more frequent periods of wakening and

of longer duration. These were occasioned by pain in the bowels and other portions of the body. During these periods of wakefulness she made attempts to call attention to her pain by placing her hands over its seat and crying out "pain," "pain," "die," "die." Gradually improving, she was, by the third week in August "almost free from torpor, and slept little more than a person in health." On recovering from the torpor she seemed to have forgotten all her previous knowledge. She did not recognize her friends, was restless and inattentive, and easily pleased by new things, seeming like a child.

"In a short time she became rather more sedate, and her attention could be longer fixed on one object. Her memory too, so entirely lost as far as regarded previous knowledge, was soon found to be most acute and retentive with respect to everything she saw or heard subsequently to her disorder; and she has by this time recovered many of her former acquirements, some with greater, others with less facility. With regard to these, it is remarkable that though the process followed in regaining many of them apparently consisted in recalling them to mind with the assistance of her neighbors, rather than in studying them anew, yet even now she does not appear to be in the smallest degree conscious of having possessed them before.

At first it was scarcely possible to engage her in conversation; in place of answering a question she repeated it aloud in the same words in which it was put, and even long after she came to answer questions she constantly repeated them once over before giving her reply. At first she had very few words, but she soon acquired a great many, and often strangely misapplied them. She did this, however, for the most part in particular ways; she often, for instance, made one word answer for all others, which were in any way allied to it; thus in place of 'tea,' she would ask for 'juice,' and this word she long used for liquids. For a long time also in expressing the qualities of objects, she invariably, where it was possible, used the words denoting the very opposite of what she intended, and thus she would say 'white' in place of 'black,' 'hot' for 'cold,' &c. She would often also talk of her arm when she meant her leg, her eye when she meant her tooth, &c.

She now generally uses her words with propriety, although she is sometimes apt to change their terminations, or compose new ones of her own."

Soon after the torpor left her she began to play on the piano and sing many of her old songs, apparently remembering them when assisted with the first few words. In this way she also re-acquired the ability to read, singing the words of songs from the printed page. With several of these acquirements which she has re-acquired, there does not seem to be the least recollection of having known them before. When asked how she had learned to play by note, she did not know, and was surprised that her questioner could not do the same. The postscript added to the article March, 1879, says that the patient passed the balance of her life happily, gave birth to a daughter, who survives her, and died, lamented by her friends and neighbors, on account of her kindly disposition.

(2.) OBSERVATIONS ON NEURITIS AND PERI-NEURITIS OF SOME OF THE CRANIAL NERVES.—BY JULIUS ALTHAUS, M. D., M. R. C. P.—Dr. Althaus concludes, in this number, an article on the above subject, commenced in volume first. After detailing a number of interesting cases, and entering somewhat fully upon the pathological and physiological questions involved, he concludes:

"The prognosis of peri-neuritis is generally much more favorable than that of neuritis, because in the former, although there is pressure on the nerve-tubes, yet the cylinder axis generally escapes destruction, while in the latter the whole of the contents of the nerve, including its central core, is destroyed. Thus we find that almost all cases of facial palsy ultimately recover, while olfactory and auditory neuritis is rarely influenced by any treatment. It is true that these latter cases are generally only specially treated after the inflammation has subsided, and when the nerve-tubes are left in a state of hopeless decay.

If a case of acute neuritis is recognized in the beginning, it should be treated according to general principles, i. e. by leeches, blisters, and the application of ice as near as possible to the seat of the disease. This should be combined with the internal administration of calomel and opium, in doses of one grain each, several times a day. After the acute stage has subsided, a stimulating treatment must be resorted to, more particularly the application of the constant voltaic current to the suffering nerve. Iodide of potassium may also be given, although there is not much evidence to show that it really is useful in such cases. For peri-neuritis the same rules hold good as for neuritis, and are fortunately more effective in practice."

(3.) AUDITORY VERTIGO.—BY J. HUGHLINGS-JACKSON, M. D., F. R. S.—Dr. Hughlings-Jackson's cases, taken in connection with Cyon's observations on the function of the semi-circular canals and the "sense of space," are of considerable interest. Cyon's observations were first published in Pflüger's *Archiv für Physiologie*, in 1873, and subsequently in his thesis for the Doctorate at the University of Paris, 1878, he reviewed the entire subject and added new observations, modifying, somewhat, his previous conclusions. These conclusions are substantially that: The functions of the semi-circular canals consist in furnishing us, by means of unconscious sensations, (*sensations inconscientes*), with a correct representation of our position in space. Each canal has a determinate relation to each of the three dimensions of space. Dr. Jackson's cases were: 1st, a case in which there were ocular movements during a paroxysm of auditory vertigo; and 2d, noise in the right ear, with tendency to walk to the left side. In the first case, during the attacks of auditory vertigo there was rotation of the eyes from left to right in frequent jerks, at the same time objects in the room appeared to pass to the right, *reappearing* at the left and again passing to the right. In the second case, the patient had per-

sistent roaring and buzzing in his right ear, coincident with a tendency to walk constantly to the left.

(4.) ON THE WEIGHT OF THE BRAIN AND ITS COMPONENT PARTS IN THE INSANE.—BY J. CRICHTON-BROWNE, M. D., LL. D., F. R. S. E.—The first portion of Dr. Crichton-Browne's article was published in the *Brain*, for January, 1879, and any synopsis of his methods and results will involve an examination of that also. The results set forth in the paper are drawn from the examination of "four hundred insane patients who died in the West Riding Asylum in a period of three years, from the 1st of May, 1873, to the 1st of May, 1876. Of these patients, two hundred and forty-four were males and one hundred and fifty-six females." In the examinations, cases in which tumors of the brain or recent extravasations of blood existed, were rejected.

"In all cases the brain was examined in a precisely similar manner. Being removed from the skull in the usual way (always by a competent pathologist, and never by a porter or assistant,) it was laid in a small trough, while a few rents were made in the pia mater, and a couple of incisions in the corpus callosum, so that the serous fluid which in chronic lunatics is so often found in large quantity, in the ventricles and sulci of the frontal and parietal lobes, might drain away. This fluid having been collected and measured, the brain was weighed as a whole with standard weights, and in scales that were tested and adjusted from time to time. As the next step the brain was placed upon a board, resting on its upper surface, and the cerebellum being raised in the left hand of the operator, two clean cuts were made with a large brain-knife, through the crura cerebri, close to the pons Varolii. These cuts commenced at the outer margin of each crus, were directed parallel to the anterior margin of the pons, and met in the locus perforatus posticus. The hemispheres being then turned over, were separated from each other by one long sweep of the knife in the central line of the corpus callosum. Each hemisphere was carefully weighed, as were consequently [subsequently?] the cerebellum, pons Varolii, and medulla oblongata, which were divided from

each other by incisions through the middle peduncles, and in the depression below the inferior border of the pons Varolii. The anatomical landmarks, guiding the incisions enumerated, are so well defined that no serious deviation was possible, and the only instance in which any doubt could be entertained as to the complete identity of the part weighed was in the case of the medulla oblongata. There may have been some latitude in determining the lower boundary of this body, which is on a level with the upper border of the atlas; but pains were always taken to hit upon it as nearly as possible, and it is believed therefore that upon the whole the weight of the medulla oblongata has been correctly given. As regards the hemispheres, cerebellum, and pons Varolii, entire confidence is felt that these parts have been accurately partitioned and weighed."

The average weight of the brain, at all ages, in males, was found to be 1334.7 grammes, in females, 1198.5 grammes; of the right hemisphere, in males, 580.7 grammes, of the left, 577 grammes; in females, right, 521.1 grammes, left, 519 grammes; cerebellum, males, 151.4 grammes, females, 135.7 grammes; pons Varolii, males, 18.7 grammes, females, 16.4; medulla oblongata, males, 6.9, females, 6.3 grammes.

Dr. Crichton-Browne thinks that the difference in weight of the brain in the two sexes is not to be accounted for on the score of the general difference in stature and bulk, as that is not shown to reach the percentage, 11.4., established by his tables, as the difference in brain weight. He does not, moreover, think that this is the true difference, but concludes that in perfectly healthy persons, the balance in favor of the male sex will be shown to be more than 136.2 grammes. He says:

"All available evidence, therefore, points to the conclusion that the brain of the male exceeds that of the female, in weight, to a greater degree than has been heretofore currently reported, and that the relatively small size of the latter is not to be accounted for by deficiency in stature or weight, but depends, as Broca has argued, as much on her intellectual as her physical inferiority."

The author does not regard the facts given in his tables concerning the weight of the brain at various ages as of any value as far as exact information on this point is concerned. He gives, however, the deductions drawn from all sources of information. They are:

“That the brain in both sexes undergoes a progressive increase in weight in each decennial period up till middle life; that in men it attains its greatest dimensions and weight between thirty and forty years of age, and in women between twenty and thirty; and that after this, at first slowly and then more rapidly, it decreases in weight *pari-passu* with the intelligence.”

Concerning the weight of the two hemispheres, the conclusions drawn by Dr. Crichton-Browne are directly opposed to the statements of Brown-Séquard that the left hemisphere is “much larger.” Indeed he says, (pg. 44, April No.,) speaking of the greater weight of the right hemisphere:

“There is at any rate no warrant for the belief which has gained currency, and contributed to the construction of some neat theories that the reverse holds good, and that the left hemisphere is the leading one, in bulk and weight, as well as in the initiation of voluntary movements.”

The entire article is replete with interesting and well digested facts.

The Brain, July, 1879.

ARTIFICIAL FEEDING IN BULBAR PARALYSIS.—In the course of some “Remarks on Bulbar Paralysis, with Special Reference to Artificial Feeding,” Dr. Thomas S. Dowse makes reference to methods of artificial feeding, which may be of interest to the readers of the JOURNAL, and which we copy, regretting that our space does not permit a more complete synopsis of the entire article.

“Feeding the insane through the nostrils was first prominently brought before the profession, and its advantages ably maintained

by Dr. Moxey, in the columns of the *Lancet*, 1869-73, although Dr. Clouston amongst others wrote rather biassedly in favor of the stomach-pump and gag. I think there can be little doubt that the no less scientific, though perhaps unnatural, mode of procedure, of making the passages of the nose a means of direct communication with the involuntary muscles of the œsophagus is now generally admitted and usually adopted. For my part and in my experience, the latter has exceptional advantages of which I have always availed myself, no less in cases where forcible feeding has been required than in those to which this paper especially refers. To prevent reflex irritability, the tube should pass beyond the muscles of the pharynx, then the food enters the stomach in a continuous stream, no matter what efforts are made on the part of the patient to prevent it. I can not but apprehend considerable inconvenience may occasionally arise from merely pouring the fluid through the nostril, unaccompanied by tubing. Concerning the difficulty which sometimes occurs in passing a tube through the nostrils into the œsophagus, I am quite aware that it depends no less upon the skill of the operator than upon the nature and size of the tubing used. The introduction of a bougie, or catheter, through the male urethra, is by comparison a teaching example. We have all found by practice that a No. 10 elastic catheter will glide into the bladder with perfect ease and total absence of pain to the patient, when a No. 4, if passed at all, is accompanied by excruciating pain and discomfort. It is not less so in the passage of the naso-œsophageal tube, and I have more than once been compelled to desist from attempting to pass a highly-wrought beautifully tapering elastic œsophageal tube, when a piece of common india-rubber tubing has been subsequently passed with facility. In forcible feeding, we have on the introduction of the tube not unfrequently to overcome volitional spasm of the pharyngeal muscles, by preventing the access of air to the patient's lungs, when in a few seconds the automatic compulsory respiratory effort soon necessitates a deep inspiration, and the difficulty is at once removed by the immediate passage of the tube. In spasmodic strictures of the urethra, prolonged gentle firm pressure causes the primary spasm to yield, and the obstacle is not only overcome but the temporary muscular inertia produced by overstrain renders the passage of the catheter doubly easy. We find at times, when the operation of nasal feeding is conducted imperfectly and hurriedly, that reflex irritation gives rise to a sense of choking and perhaps sputtering of fluid from the mouth and nose, but this is simply

due to the absence of careful manipulation. For some years past my œsophageal tube and funnel for nasal feeding has consisted of an ordinary india-rubber inflation pessary (a hole being cut in the bulb which forms the funnel to admit of the pouring in of the fluid)."

VOMITING IN CONNECTION WITH CEREBRAL DISEASE.—
BY D. FERRIER, M. D., F. R. S.—In the course of some remarks upon the above topic, in which he discusses briefly the general subject of vomiting, Dr. Ferrier presents several facts of interest concerning emesis both as a symptom and result of cerebral disease or irritation. Concussion of the brain, and shock, with syncope, no matter how produced, are now regarded as the same in all essential factors. Temporary annihilation of consciousness, more or less profound, with grave depression of the circulation, is the most marked phenomenon accompanying this state. There are often attempts at vomiting. Dr. Lauder Brunton, (*Practitioner*, Vol. XI, p. 241), has shown that shock depends upon dilatation of the abdominal blood-vessels. These cover such an extended area that when fully dilated they accommodate nearly the entire amount of blood in the system, and although in these conditions the heart continues to beat, there is but little blood passing through its cavity, and circulation is all but suspended. In these cases the vomiting which ensues seems to result from great and sudden lowering of the blood pressure. The vomiting that occurs after copious hæmorrhage and venesection is an analogous condition. Dr. Ferrier says that these forms of cerebral disease, in which vomiting is met with, will be found also to be those in which pain is experienced; hence, vomiting occurs in connection with meningitis and cerebral tumors. In affections of this kind vomiting occurs independently of the position of the lesion. Dr. Ferrier does not believe

the assertion of Budge, that it is more frequent in disease of the right hemisphere, entitled to credence. Headache and vomiting, do not, he thinks, stand in any relation to each other. Intense pain alone being sufficient to produce vomiting, on the one hand, on the other, emesis occurring in the early stages of certain diseases, tubercular meningitis, for instance, before any pain of marked intensity is experienced. Frequently the two alternate, one giving way to the other. The article concludes as follows:

“While we may ascribe the great majority of cases of cerebral vomiting to irradiation of irritation of the nerves of the cerebral membranes, or to the physical effects of acute pain, there are some cerebral affections in which possibly another cause may be operative. It is generally believed that vomiting is more especially associated with lesions of the cerebellum and corpora quadrigemina. Diseases affecting the centers of equilibration might be accompanied by sickness more through the vertigo induced, than from mere irritation of the cerebral membranes.

In the facts recorded, however, it is not easy to eliminate what may be due to the lesion as such, and the causes operative here as elsewhere. For the anatomical relations of the posterior fossa of the skull are such as to allow of irritation of the cerebral membranes often of a very definite and circumscribed character. Should vomiting be proved to be present in such cases apart from irritation of the membranes, we might account for it by disturbances of equilibration and the concurrent vertiginous sensations. But, apart from these circumstances, irritation of the cerebral membranes seems to afford a sufficient explanation of most cases of cerebral vomiting.”

The British Medical Journal, June 19, 1880.

ACUTE AND CHRONIC CASES TO BE TREATED TOGETHER.—From the editorial columns of this valuable cotemporary we extract the following regarding the inadvisability of a rigid separation of acute and chronic cases of insanity, in asylums, both on grounds of economy and of medical treatment:

"The debate in the House of Commons last week on lunacy gives us an opportunity of calling attention to the present deadlock in Middlesex. How is it that, with vacancies at the Banstead Asylum, it is requisite to send pauper patients to licensed houses, and even so far away as Fisherton House, whilst at the same time it is allowed that in the three county asylums of Middlesex there are from 250 to 300 patients who are fit for treatment in workhouses? The answer given is, that these county asylums are already treating as many acute cases as their peculiarities of construction allow, and that no object would be gained by sending the cases of 'senile dementia' to the workhouse, because the vacancies so created could not be filled by acute cases. What the medical superintendents of these asylums say is no doubt true, for they have no special interest in keeping a chronic and harmless population; on the contrary, everything would tempt them to so utilize the conditions of their establishments as to conduce to the greatest amount of cure and to secure the interest that attaches to acute cases. Colney Hatch and Hanwell Asylums are badly adapted for treating acute insanity, and Banstead still more so; so that the only apparent method of dealing with the urgent question is the erection of acute wards in connection with each of these asylums, or, if not at all of them, then at Banstead, which has the advantages of an admirable locality and of spare ground. To build a distinct asylum for the treatment of acute cases would be a notorious waste of public money, so long as there are vacancies in the existing asylums; and for other reasons it would not be advisable. All experts are now-a-days agreed that a mixture of cases gives the best opportunity for treatment, both on medical and on economical grounds; hence the advantage of having a building for acute cases connected with chronic wards; and to practical men some of the ideas that have recently been promulgated must appear impossible of execution. Thus it has been advised that there should be temporary houses of detention, in which patients should remain until their insanity was verified by a special Government officer. How great must be the Government staff for London alone to do this, and how impossible would it be to say at once, or even in some cases after two or three days, whether such and such a person was insane, and to draft him off to an asylum for which it might afterwards appear that he was totally unsuited! Again, look at the disturbance involved by taking acute cases first to one place and then to another, especially if, as frequently happens, the patients look upon repeated removals with

horror. The essentials for the successful treatment of acute insanity are plenty of space and freedom from excitement of all kinds; and such conditions are best attained in asylums accessible to, but removed a little distance from, large cities. The hardship of having to take people away some distance from their surroundings is nothing compared with the advantages of pure air and possibility of unfettered exercise; and for this reason it is of no use to contemplate, as some do, the placing asylums in connection with the large hospitals. Insanity is as often as not a disease not only of the mind but of the whole body, and the conditions for its treatment must be wide and not cramped. It is said, again, that the number of medical men engaged in the treatment of acute insanity are far below what they should be. Is this so? In a hospital, each physician or surgeon has about thirty cases, on an average, to treat; and we question very much if, dividing the acute cases in the three county asylums of Middlesex among the medical residents, so large a portion falls to each. It would be far better if the *chronic and harmless, quiet cases were treated in the workhouses* in London, and a certain proportion of 'working' but troublesome cases left in the asylums, which latter should be made suitable for the reception of acute cases. We sincerely hope that the Government Commission will examine the Lunacy Commissioners and the medical superintendents of the Middlesex asylums on these points of accommodation and classification; for, of all men engaged in the practice of lunacy, they have the largest numbers to deal with, and must understand the difficulties of it; and we hope that the Commissioners may have more power given them to enforce *particular methods of construction* on justices who are meditating enlargements to asylums or new buildings altogether, and that we shall not again see such an anomaly as a county asylum built in which the acute cases of the county can not be received."

The British Medical Journal, June 26, 1880.

UNLOCKED DOORS IN ASYLUMS—The following suggestive editorial on "Asylums without Locks," will, we think, be of considerable interest to many of our readers:

"Dr. Rutherford, of the Barony Parochial Asylum at Woodilee, near Glasgow, intimates in his annual report that, mainly through fully occupying the patients, and thereby counteracting the tend-

ency to manifestation of their insane ideas, it has been found practicable to carry out the open-door system of treatment. All the doors in the asylum open with ordinary handles, and only the chief attendants are in possession of a key. No untoward event has as yet occurred to lead Dr. Rutherford to change his opinion that, by the diminution of apparent restrictions upon liberty, greater quietness and contentment are secured, which has its effect in promoting recovery and contentment. The open-door system, as it is called, has prevailed more or less in English asylums for twenty or thirty years past, almost every asylum having had its farm, and laundry, and convalescent ward, with unrestricted egress and ingress to the patients located in them; but the peculiarity of the system as now developed in Scotland is that all the doors of the asylum are understood to remain unlocked, the patients having constant opportunities of quitting their wards and the establishment, if disposed to do so. If this be not what is meant by the open-door system—and if that appellation be used to imply merely that a considerable number of doors are left open—then we can not help regretting that a misleading phrase should have been employed. If, on the other hand, the open-door system is really what it professes to be, we must congratulate those who have originated it, not only on having improved the condition of the insane, but on having achieved a moral triumph which has not yet been equaled in any sane community; for we do not know any town or country in which private houses are conducted absolutely upon the open-door system. To secure complete confidence, however, in the thoroughness of the system, it would seem desirable that the doors of the asylums in which it is carried out should not only “open with ordinary handles,” but should be constructed without locks, and that the chief attendants should be deprived of their superfluous keys; for the existence of locks and keys is calculated to create the suspicion that some doors are sometimes locked; and, if that be so, the open-door system is merely a pretentious myth, for it is, of course, obvious that an asylum might be so arranged that a very small number of locks might entail a very large amount of restriction of liberty. The exact number of locks necessary to insure safety in any asylum would, of course, depend very much on the character of the patients received into it, and of the population from which they were drawn, and on the number of nurses and attendants employed. In a Scotch asylum, containing lunatics drawn from an industrious and law-abiding race, and afflicted with the less formidable varieties of insanity, a

small number might suffice; while in an English asylum, in which general paralysis and epilepsy abound, and in which the patients are of turbulent disposition, a larger number might be indispensable. Then, in any asylum, the locks might be diminished in number *pari-passu* with an increase in the number of the attendants, the only limit to this process being the long-suffering of the rate-payers. Wherever the open-door system was adopted, vigilant supervision would be imperatively necessary to insure that some subtle and more objectionable form of coercion did not take the place of the passive resistance of the lock. It is unfortunate that the open-door system should have been vaunted as a beneficent discovery without sufficient emphasis being placed on the circumstances which must limit its extension, as asylum medical men, who are simply prudent and regardful of the public safety and the welfare of the patients committed to their charge, are apt to be suspected of obstruction and a blind adherence to routine when they decline to sanction its adoption in the hospitals for which they are responsible. Dr. Rutherford's opinion that, by the diminution of apparent restrictions upon liberty, greater quietness and contentment are secured in asylums, is certainly not original nor peculiar to himself. It has been the guiding principle of the humane treatment of the insane since that was first inaugurated; and the effort has always been to remove not only apparent, but real restrictions on lunatic liberty, as far as that could be done without public risk or the sacrifice of the paramount objects which must always be held in view in dealing with the insane. But hopeless would have been the attempt at humane treatment, and sad the condition of the insane to-day, if the founders of that treatment had not proceeded with caution and sagacity, indulging in no rash experiments. There must be some limit to the removal of restrictions on the insane; if not, the simplest and wisest course would seem to be to abolish lunatic asylums altogether and at once; for, disguise it as we may, they are, after all, but costly and elaborate engines for the imposition of restrictions."

A FEW REMARKS ON EPILEPSY.

BY DR. L. WITKOWSKI, PRIVATDOCENT, STRASSBURG.

[Translated from the *Allgemeine Zeitschrift für Psychiatrie*, 37 ter Bd., 2 tes Heft, 1880.]

When I delivered my address on epilepsy before the psychiatric section of the Association of Naturalists, recently held in Baden-Baden, I was obliged to curtail my remarks on account of the advanced hour. And for this reason my own report in the bulletin is so short, that, in order to avoid any misunderstanding, I prefer to present the following condensed survey of what I had intended to say on that occasion. In doing so I shall preserve the general idea of my address, only making certain modifications and addenda which have suggested themselves as the result of new discoveries and farther research. The following remarks comprise, in all essential points, the contents of my inaugural address, delivered in November, 1877, and I have since taken pains to verify and improve upon my opinions, whenever it has been possible to do so, by the test of practical experience.

All seizures which occur in epileptics, however dissimilar they may be, are susceptible of a ready division into three great groups, and these merge into each other without any well-marked boundary line. The first group contains seizures of short duration—from a few moments to minutes. In view of the frequent presence of but one element of disease (e. g. convulsion, vertigo, or loss of consciousness,) I had designated these seizures, in my address, as *elementary*. In the majority of instances, however, the seizure only appears to be elementary; one symptom predominating whilst others are but slightly expressed. On this account their designation as *rudimentary* seizures has more in its favor. They often-times precede other modes of seizure by many years, although they are quite frequent later in the course of the disease, and, in the beginning, obstinately resist treatment by bromide of potassium and other means. To this group belong the greater portion of those cases which have been described as epileptoid, *petit mal*, vertiginous attacks, absence of mind, etc. These rudimentary seizures are also of frequent occurrence in organic diseases of the brain, but in hysteria they seem to be entirely absent. R. Rey-

nolds has adduced as characteristic of *petit mal*, the fact that in this form only voluntary movement, in the strictest sense of the term, is lost; on the other hand, not only that which is essentially automatic (respiration), but also motion which has been so rendered by force of habit (writing, walking, etc.), remains undisturbed. And in point of fact this is, in the beginning, quite true and very significant; this view is not consistent, however, with one form of seizure which belongs here, and to which I specially refer because it seems to me to be little known. The patient suddenly falls, and immediately rising to his feet again, positively asserts that he has neither lost consciousness nor experienced vertigo; he was only unable to remain any longer on his feet. The cortex of the cerebrum continues, therefore, to exercise its function, it being only the connection between it and the muscles which is momentarily but completely interrupted. We have here a real and, indeed, very important individual element of the epileptic attack, inasmuch as this high degree of encroachment of the will power upon the movements of the body always recurs as a characteristic of epilepsy. It constitutes a main difference between epileptic and hysterical convulsions, and is equally easy of recognition in the peculiar dreamlike actions of psychical epilepsy.

The second group comprises *regular* seizures, epileptic more properly so-called, using the word in a stricter sense. Their duration varies from a few minutes to few hours, including the period of sopor or confusion of ideas. Among symptoms more or less marked, loss of consciousness and convulsions are always present, although the latter may sometimes be easily overlooked. Aura and sopor are frequent, but both are far from being constant. On the other hand there are, in the beginning, regular dilatation of the pupil, and uniform divergence of the eyes in a given direction; more rarely, we have strabismus. In rudimentary seizures there may be an absence of both these symptoms, and especially dilatation of the pupil. The conspicuous one-sidedness of the convulsions, not an event of rare occurrence, is often only partial and apparent, a fact of which we may convince ourselves by a close examination of the patient when divested of clothing. Very many varieties occur as regards form, degree, and duration; the typical epileptic seizure, described by Romberg and others, forming only one, though certainly the most frequent variety. Oftentimes the progress of the phenomena is of such a character that, with loss of consciousness, first tonic, then clonic convulsions (*medulla oblongata*) appear; later, there supervenes muscular incoördina-

tion, which seems to correspond with a vague conception of ideas (pons), and, finally, we have psychical excitement (cerebrum). It is evident then that the phenomena of excitement advance successively from below upwards. As already stated, however, the course of the attack is marked by great variations; excitement may occur as the first symptom, or there may be present, from the onset, irregular gesticulatory motions, and so on. It frequently happens that in the beginning we have no evidence of pallor, so that the inference which has been drawn from the alleged constancy of this symptom (arterial spasm as the cause of the attack), can not be sustained. Of much greater frequency are spasm of the glottis and cyanosis, although even these are not constant phenomena, and hence it follows that we have here no positive criterion whereby to differentiate an apoplectic seizure, many authorities to the contrary notwithstanding. To the manifold transitional forms of the epileptic and apoplectic attack belong, more especially, a large proportion of "paralytic seizures," for which reason, by the way, the retention of this latter designation seems to commend itself.

Lastly, the third group comprises those acute attacks into which seizures of the first or second form, or both, enter, coupling themselves, in most instances, with additional, and especially psychical symptoms. These may be termed *combined* seizures, and their duration varies from hours to weeks. Very frequently—and attention has hitherto been directed to the subject by but few authors (Bourneville, Binswanger), there occur febrile phenomena, sometimes slight, sometimes very marked. These have by no means the evil significance, prognostically, which, according to Wunderlich, attaches to such symptoms when occurring in neuroses, tetanus, for instance, and the like. An increase of temperature is not a necessarily constant element in the individual seizures. That a constant rise in the course of a series may sometimes be established, can not be gainsaid, but it is no less true that it may be more frequently excluded, and that, too, with equal certainty. Even in cases of marked cumulation, fever may be entirely absent, or it may appear before or after their occurrence. The idea, therefore, that pyrexia is produced by a summation of slight increases of temperature, which correspond to each individual seizure, (Bourneville), can not be substantiated. Indeed, so far as my own observation goes, an increase of temperature is absent in the regular epileptic seizures, whereas, as is well known, it occurs frequently in the paralytic paroxysm. When not produced by other causes,

(lungs, intestines, etc.), a rise of temperature, in epileptics, invariably points to a marked disturbance of consciousness, be its manifestation in the form of sopor, profound stupor or pronounced excitement. And it may therefore be assumed that, in these cases, the highest psychical centers, as well as those portions of the brain which preside over the regulation of heat, suffer an impairment of activity. As yet, I have detected albuminuria (Huppert) neither after individual nor in cumulative seizures, where one would rather expect to find it.

With especial regard to relations of temperature, combined seizures may be subdivided somewhat as follows:

1. *Simple Series of Individual Seizures*, (first or second group), more or less numerous, and lasting from one hour to several days. In series of rudimentary seizures I have never seen persistent sopor, though this symptom is frequently present in regular paroxysms, and may even precede their occurrence by several hours. Other psychical phenomena are either entirely absent or but very slightly marked. Prodromes, too, are rather the exception. In longer series, with persistent sopor, we may sometimes have a conspicuous rise of temperature, usually occurring by very gradual accretions. And thus there is a transition to

2. *True febrile attacks*, into which delirium enters as an additional element. Before all, the *état de mal* of the French (status epilepticus febrilis) belongs here, yet it must be confessed that in Bournville's description this has been far too much schematized. Doubtless, too, the *congestion apoplectique* (sopor) *et méningitique* (delirium) of Delasiauve claims, for the most part at least, a place here. The course of the attack is very variable, the most usual sequence of events being, however, as follows: Series of seizures with intervals of sopor with rising temperature; after the cessation of the seizures, sopor remains with increasing muscular restlessness; temperature continues high, or fluctuates; delirium; temperature falls or rises again. And thus we have here, also, the same progress of cerebral excitement as occurs in the regular individual seizures. At other times sopor (with fever) takes the lead in the array of symptoms, or there may be a succession of several series, or delirium may oscillate between profound stupor and extreme excitement, or, finally, we may have a great variety of subordinate symptoms, e. g., anæsthesia, paresis, amnesia, echolalia, and so on. Profuse sweats occur constantly, and worthy of further notice is a frequent and rapid change of circulatory phenomena, pallor, cyanosis and fluxes following each other in

quick succession. Together with marked febrile forms ($+ 40^{\circ}$ C.) there occur others in which the fever is slight (at the most 39.5° C.) and which run a less acute course. Their duration varies from about five days to several weeks. The prognosis is always serious, recovery being not a rare event, however; and when death takes place it is generally from pulmonary affections or injuries. Post-mortem examination reveals nothing characteristic. (Precisely the same affection occurs without other epileptic antecedents, in which case there seems to be a marked tendency to recurrence.) The cases which were observed in this clinic, up to 1877, are recorded in F. Hertz' dissertation (*Ueber den Status Epilepticus*, 1877).

3. *Sub-acute attacks (duration of several weeks) entirely without or with only slight febrile phenomena* (occasionally 39° , at the highest) called by me in the Archiv f. Psych., status epilepticus afebrilis. Their course is usually of such a character that, with cumulative rudimentary seizures, general nervous disturbance makes its appearance, such as vertigo, dread, irritability, nausea, pains, hippus, etc., symptoms which may last for weeks before the disease "breaks properly out," as the patient expresses it, that is, until a regular seizure, or several, close the scene; and from this time considerable relief is experienced. To these periods unquestionably belong a large share of those "habitual bad traits of character" with which the epileptic is accredited. This group can not, however, be sharply divided from the second, nor from

4. *Those morbid states which are characterized by predominant psychical phenomena.* To this category belong by far the majority of cases of epileptic insanity. Here, too, febrile phenomena are not of rare occurrence, being either of rather long duration (transition to 2 and 3), or transient, and often only evident for quite a short time, when, especially if occurring at night, they may be easily overlooked. Of this form we have the excellent descriptions of Falret, Trousseau, Samt, Echeverria and others, and I shall therefore confine myself to the consideration of a few points wherein I differ from current opinion.

The individual seizures occur not only before or (more rarely) after the delirium, but they are also observed, and by no means seldom, in irregular succession, throughout the attack, a circumstance of which little note has heretofore been made. It very rarely happens that their presence does not admit of demonstration, and in this latter event we have, in their stead, a long and continued muscular restlessness. I hold it to be a very difficult matter to positively exclude their presence, and absolutely impossible when,

as is the case in most recorded instances, the seizure has run its course entirely, or for the most part, outside of an institution, and is only made known by the history. Every experienced alienist knows how frequent is the discovery of recent wounds in the tongue, lips or parietes of the mouth; and how often it happens that partial convulsions remain unobserved until after the removal of the patient's clothing. Further, a certain *ensemble* of psychical phenomena brings home the supposition of epilepsy, although in my experience there occur transitional states which merge into the delirium of alcoholics, paretics, menstruating women, and the like; and, lastly, the form of the epileptic mental disturbance, varying as it does between stupor and excitement, profound depression and the happiest, maniacal frame of mind—and we may even have real exaltation—is by no means so uniform as has been represented. Hence I believe that many cases are included under the term of epilepsy which do not belong to the disease, and I conclude that the existence of the purely psychical “epileptic equivalent,” (Fr. Hoffman, *Allgemeine Zeitschrift für Psychiatrie*, Bd. 19), which was said to run a course entirely devoid of individual seizures or other convulsive phenomena, has not yet been satisfactorily established. At all events the individual seizures are oftentimes of very secondary importance, and herein lies a distinguishing feature of this group, especially from the second. The entire attack may be over in a day or it may last for weeks.

In conclusion, I wish to refer to two characteristics of epilepsy on which undue stress has been laid. A defect of memory—including the partial forgetfulness which has been specially referred to by Samt—occurs in many conditions of marked excitement and mental confusion, being particularly frequent in psychical epilepsy, but, as has justly been observed by several recent authorities, it is by no means a constant symptom. In different psychical seizures, in the same patient, it may be present at one time and absent at another. This brings us to the second point, namely, that a “photographic similarity” does not in reality exist in all seizures, in the same epileptic. (This has been particularly referred to in the debates of the Société Médico-Psychologique, 1873–75, since Falret first drew attention to the fact.) It is true that the recurrence of a certain set of ideas, particularly those of an affectedly pious character, fixed delusions and sensations, peculiar motor phenomena (singing, whistling), and the like, are a frequent and noteworthy feature in the combined, as well as in other forms of seizure; but the return of similar symptoms is the rule in all

forms of recurrent insanity. Moreover, exact and long continued observation always shows, in epilepsy, material deviations as regards the form, duration and degree of the seizure. And this circumstance may become of practical significance, in so far as it will not be justifiable to draw, unconditionally, from data which have been afforded by one case of psychical seizure, positive conclusions in regard to another.

I shall abstain here from any connected treatment of the position which the various forms of seizure assume in the general picture of the epileptic attack, and only make a few remarks in this connection. A tendency to combination is always a sign of a serious attack, and is generally an early manifestation. The proper place for such patients is an institution, at all events for a time. Treatment by bromide of potassium seems to frequently effect a modification of the phenomena, at any rate it does so temporarily. I know of no other therapeutic means worth mentioning. Where, in cases of long standing, combined seizures cumulate, the intervals eventually become very short, and an almost chronic mental disturbance is induced, at times approaching paralysis, and at others mania (*Verrücktheit*). It seems to me that it is only the epilepsy of childhood and puberty which brings with it a tendency to rapid imbecility; in outbreaks occurring later in life, the majority of epileptics remain for many years on a relatively high intellectual level, although I am aware that many authorities, especially Griesinger, entertain a converse opinion.

The foregoing attempt at a comprehensive grouping of the various forms of epileptic seizure appears to me, on account of its greater simplicity, to possess advantages over its predecessors. Inasmuch as I have adduced new views and controverted others which I am compelled to regard as erroneous, I would add that these condensed remarks embody the result of a special and unremitting attention to the subject for five years. Basing my opinion upon that experience, I am free to say that, in view of that one-sided consideration and arbitrary schematization of the psychical phenomena, which has lately become so general, we incur the risk of losing that clear clinical conception of epilepsy which can surely never be replaced by unproven hypotheses, such as a supposed arterial spasm. Only so long as this conception remains prehensible can there be any sense in attaching value to the diagnosis of "epileptic insanity," otherwise it is nothing more than an empty name without any deep signification.

STRASSBURG, March, 1880.

BOOK REVIEWS AND NOTICES.

General Paralysis of the Insane. WM. JULIUS MICKLE, M. D.,
M. R. C. P., Lond., &c., &c. London: H. K. Lewis, 136 Gower
St., W. C., 1880.

By his writings in the *Journal of Mental Science*, upon the subject of General Paralysis of the Insane, Dr. Mickle has become known to the members of the profession in this country, as well as in England and on the continent. A book by an author who combines with the prestige of practical experience a critical knowledge of the literature of this subject, excites the expectation of finding something worthy of attention and careful study. In this regard we are not disappointed. The author presents, not only the views of others, but also his own observations and conclusions from the numerous cases which have been under his care, as the medical superintendent of an institution which has received a large percentage of patients with this form of disease. The references in the text and foot notes, show how thoroughly and conscientiously he has given, not only what is known, but also what is conjectured to be the truth, by observers of various reputation and nationality. While this increases the value of the work, it serves, by contrast, to enhance the importance of the original research of the author.

He announces his belief in the "unity of the disease," as opposed to the distinguished authority of Griesinger, Bucknill and Tuke, Billod, Parchappe, and others who support the "doctrine of duality."

The history of general paralysis is passed over in a single paragraph, with the remark, that though Haslam, Georget and Esquirol caught glimpses of the disease, "the discovery burst forth with full effulgence in the works of Bayle, (1822, 25-26), upon whose heels Cal-

meil closely trod in this inquiry." Although from that period constant research and clinical observation have advanced our knowledge of the disease, there are many points in its origin and progress which are still under discussion.

The author describes four stages or periods as characterizing the full course of the disease, while others make a simpler one into two, or consider it as continuously progressive, with no definite limit, save in its termination in death. Besides these stages, prodromic symptoms are given. These relate to the mental state, and the Doctor says: "often, therefore, is the disease to be feared, when sudden moral falls—of which theft is the most frequent—occur to those hitherto without reproach." This opens the question of precedence of symptoms, which the author decides in favor of the mental over the motory. In this view he is sustained by Griesinger and many other prominent writers. In accord with the divisions into periods, the symptoms are thus classified, and the attempt is made to give those which are peculiar to each. This leads to confusion. The clinical picture would have been more forcible, and more true to nature if it had been presented as a whole, as a continuously progressive disease, without regard to any arbitrary limits.

The mental symptoms include all the forms into which insanity is usually divided, viz.: melancholia, mania and dementia. From the remarks we are led to the conclusion that the percentage of cases of melancholia, hypochondria and dementia, in the experience of the author, exceed those found in many of the institutions in this country.

The description of the expansive delusions of paresis are characteristically given in the following language:

"The patient is not only 'possessed' but inflated with greatness. The methods of language fail him here as he rides uplifted on the

mighty wave of feeling; or to him borne on this swelling tide of exultation, the very heavens appear to open, and he holds converse with celestial beings, and has ecstatic visions of eternal fields. Last flight of all, he may announce himself enthroned as the Almighty, and invested with His sceptre of universal sway, amid the pæans of angelic hosts."

The remarks upon the complication of general paralysis, with epileptiform and paralytic seizures, with meningeal hæmorrhage, aphasia, &c., and his observations on the temperature, the circulation, pulse, pupils and eyes constitute a highly interesting chapter.

The general average duration of the disease is stated at about two years in men, while in women it is usually more protracted.

The differential diagnosis between general paralysis and chronic alcoholism, syphilitic disease of the brain and meninges, acute mania, intra-cranial tumors, sclerosis, dementia with paralysis, locomotor ataxy and other diseased conditions with which it may be confounded, is clearly and sharply stated, and gives evidence of close observation and careful study.

Of the exciting causes, prominence is given to alcoholic excesses, sexual excesses and moral causes. Under this head are included mental strain from overwork and emotional activity. The combination of alcoholic indulgence with excessive labor, either mental or physical, is, perhaps, a more frequent cause than any of these agencies acting separately.

Sexual excesses under the light of experience hold a less prominent position than was once accorded them, as a cause.

The *macroscopical* appearances relate to the condition of the brain, spinal cord and investing membranes, and of the internal viscera. The changes noted are familiar to all who have made post-mortem examinations of paretics. As to the *microscopical* appearances, we pass

over the results of others, so many of which are quoted here, and transcribe the author's personal observations, which are certainly of more interest to the readers of the book than any compilations can be. They are as follows:

"Personal Observations.—My own microscopical examinations in general paralysis have mainly concerned the cerebral cortex, and, concisely stated, the following were the principal changes found:

In the advanced cases fatty particles, free, or in the individual tissue-elements, were sometimes observed on the sections.

The Cortical Nerve-cells.—Sometimes atrophy or shrinking of the large nerve cells was observed, associated, or not, with the appearance of vacuoles, surrounding or beside them;—sometimes they were of a dull dimmed appearance, took the carmine stain badly, and their nuclei were obscured;—or, again, granular or fuscous degeneration of the nerve-cells was present in various degrees, occasionally even to disintegration of the cells with destruction of their processes. One or more of these changes, and sometimes others, existed in a given case.

The Neuroglia.—In the neuroglia the microscope revealed an unusual richness of its nuclei; at least bodies similar to these were abundantly strewn throughout the sections. Sometimes there was an apparent relative increase in the amount of neuroglia generally; occasionally colloid bodies were found in the cortex, or pigment granulations, or microscopic patches which stained badly and had either a ground-glass-like or fibrous appearance. Not seldom were there various doubtful or equivocal appearances similar to some which are still matters of dispute between histologists.

The Blood-vessels of the Cortex.—Many vessels contained aggregations of blood-corpuscles, by which they sometimes were completely filled or were bulged.

Increase of the nuclei of the walls of the minute blood-vessels was a common appearance.

Sometimes molecular deposits or pigmentary deposits were seen in or upon their walls.

Either associated with these deposits or existing separately there were sometimes appearances of more or less irregular thickening or dilatation of the vascular wall.

Now and then some vessels had a soft molecular appearance; occasionally fusiform dilatation was seen; more rarely, capillary

rupture and extravasation, so that vessels were surrounded by minute ecchymosis."

The remarks of Dr. Mickle upon the localization of cerebral functions will find many supporters. He says:

"That there is a localization of cerebral function is indubitable, but the rigid delimitation attempted by some recent investigators does not appear to be in harmony with the facts of nature. The action of one part of the cortex can be supplemented by that of another far more than some of them are willing to allow; there is more alliance than they admit between different cortical loci or centres which can operate towards the same result,—more of a capacity for the loose, flexible, yet effective, association of units, as of an army of men—not a rabble,—an association for the accomplishment of a given purpose. This or that one may fall out of the ranks, but the march of the host is not arrested nor its purpose stayed.

The mass of facts arranged by the masterly skill of Brown-Séquard, and found in opposition with certain recent doctrines of rigid localization, can not lightly be either ignored or explained away.

Moreover, I think it can not be without meaning that the mental symptoms usually differ so much between themselves when the morbid process is earlier, and more severe, extensive, and persistent in one or the other cerebral hemisphere, and it may be inferred that the functions of the right hemisphere differ considerably from those of the left, although they are similar to so very great an extent. This, at least, is the result of an analysis of my own cases, a result not anticipated, and which came somewhat in the nature of a surprise."

The substance of the chapter on prognosis and treatment can be given in a few words. It corresponds essentially with the experience of all who have had to do with the disease. He says:

"Practically speaking, to detect the existence of decided general paralysis is to assign the patient to a comparatively early death. As soon as he is fully satisfied of the existence of true general paralysis, it is the duty of the physician to say at once that the case is without hope, and curative art without reliable and permanent efficacy therein. * * * Cures or recoveries of general paralysis have been reported, it is true."

There is, however, always a doubt as to the correctness of the diagnosis, or a question whether a remission has not been mistaken for a recovery. The author has no recoveries to report from the fully established disease.

As to treatment, this is divided into the prophylactic and that of the confirmed disease. For the first is recommended such a mode of life as regards conduct, habits, mental and physical action and control as would characterize the highest standard of morals and the most refined, genuine civilization. It is good advice, and more is the pity that the poor unfortunate who has the possible outcome of general paralysis within him can not be induced to adopt it. When the disease is openly pronounced, the treatment advised is judicious care and nursing, and of the preparations of the pharmacy, veratrum viride or digitalis, to quiet maniacal excitement, with Tr. perchloride of iron as a tonic, and either chloral or bromide as a calmative and hypnotic. These are found to be the best agents, "*during those portions of its course which the patients usually pass in a lunatic asylum.*" Mercury and potassium-iodide have often relieved an early pain in the head or extremities, but he has rarely seen life lengthened by their use. Such is the experience of our author; and so far as the main facts of the disease, the history, prognosis, result of treatment and termination are concerned, it is the same everywhere. The differences of opinion regarding some of the minor points, which give rise to discussion, will continue to exist and to attract attention. These are, however, largely due to the climate, circumstances and conditions of the patients which are under care, or in those who record the facts.

Upon all of these points the views of the author are entitled to the most serious consideration. They are well stated and strongly supported. We can say of

the book that the original portion is the most interesting, and the regret upon rising from its perusal is that Dr. Mickle did not write more freely and at greater length.

A Treatise on Foreign Bodies in Surgical Practice. A translation from the French of M. ALFRED POULET, Adjutant Surgeon-Major, Inspector of the School for Military Medicine at Val-de-Grâce. New York: William Wood & Co., 27 Great Jones Street.

Although a countryman of our own, Prof. Gross, of Philadelphia, has written an elaborate *Treatise on Foreign Bodies in the Air Passages*, the credit of having been the first to collect in one book "all the material which is scattered throughout the annals of science concerning the question of foreign bodies" in general, belongs to M. Alfred Poulet. This distinguished French surgeon has recognized the importance of the subject to the general practitioner, and in garnering, from all available sources instructive, interesting and curious cases, has enabled him to oftentimes find a precedent in circumstances which, in the absence of such a book, he would be apt to consider unprecedented. And how often has the life of a patient been imperilled, not to say sacrificed, by the inability of the practitioner to cope with foreign bodies in surgery! "He has been taught to amputate, resect, or disarticulate the limb *secundum artem*; he knows the principal arterial trunks, and all the exceptional occurrences, but there is every reason to believe that he will be a very novice in the solution of this problem which may be suddenly presented to him, both in the city and country." The many methods of introduction, the situation, motility, tendency to migrate, and ingenious devices for the extraction of foreign bodies, are all ably considered; and the two neat volumes contain much interesting information for the statistician. M. Poulet's work will

prove a worthy addition to the physician's library, and more especially so to those who are interested in bibliography and the curiosities of medical literature. Nor is the book without special value to the alienist, called upon, as he occasionally is, to treat patients who, in their delirium, have introduced into their persons foreign bodies, whose extraction, presenting not infrequently very grave difficulties, taxes to the utmost his mechanical skill. As an instance in point, we may recall a case, published in this JOURNAL in January, 1872, in which Dr. Andrews removed three hundred needles from the body of an insane woman in the Utica Asylum.

A Treatise on Therapeutics. Translated from the French of M.M. A. TROUSSEAU and H. PIDOUX, ninth edition, by D. F. LINCOLN, M. D. New York: William Wood & Co., 27 Great Jones Street.

So great is the estimation in which Trousseau is held as a physician and writer, that any work of his scarcely needs a word *pro* or *con*. Now-a-days the value of a system of therapeutics based almost exclusively upon the physiological action of drugs in the lower animals, is liable to over-estimation, and that to the disparagement of a treatise which has for its groundwork the rich practical experience of clinicians like Trousseau and Pidoux. Volume I of this work is divided into four chapters, viz., Reconstituents, Astringents, Alteratives, Irritants, each of which bears the imprint of careful study and individual research. Frequent reference is made throughout the volume to original memoirs, a circumstance which enhances its value for those who desire fuller information on the subjects discussed. The translator has performed his task admirably, and we are pleased to note that wherever doses are given in the metric system, he is careful to add in brackets the equivalent in our own scale. Altogether, the work is

one which we can conscientiously recommend to the practitioner. We should say that this volume and the two noticed above are from Wm. Wood & Co.'s Standard Medical Library. The notice of some other volumes of this series, and of other books received have been crowded out, but will appear in our next.

SUMMARY.

—At a meeting of the Board of Managers of the Buffalo State Asylum for the Insane, on the seventeenth of June, Dr. Judson B. Andrews was elected Superintendent of that Institution. He has not, as yet, entered upon the duties of the position.

—On the first of June, Dr. Carlos F. Mac Donald tendered his resignation as Superintendent of the Binghamton Asylum for the Chronic Insane, to take effect July 1st.

—Dr. T. S. Armstrong, of Oswego, has been appointed Superintendent of the Binghamton Asylum for the Chronic Insane, *vice* Dr. Mac Donald. The work of placing the institution in a condition to receive patients has been suspended, and the buildings closed on account of lack of funds.

COST OF LUNACY SUPERVISION IN GREAT BRITAIN.—"The Queen's prerogative in lunacy is exercised by the Lord Chancellor and the Lord Justices, by the Registrar in Lunacy and his staff, the Masters in Lunacy and their staff, and the Visitors in Lunacy and their staff. The cost of the three offices including pensions and excluding interest on cost of patients in the Courts of Justices, is as follows:

Registrar in Lunacy,	£ 2,217
Masters in Lunacy,	£12,805
Visitors in Lunacy,	£ 8,317
The cost of the Commissioners in Lunacy,	£18,169 "

[Care of the Insane and their Legal Control, BUCKNILL, p. 28, preface.]

This gives the annual cost of the Lord Chancellor's department at \$116,695, and that of the Commissioners in Lunacy \$90,845. Total cost of lunacy supervision \$207,540.

CEREBRAL TEMPERATURE.—Some years ago, Dr. C. S. Lombard commenced a series of observations by the aid of a "differential calorimeter" devised by himself, to determine the relative temperatures of different parts of the brain at rest, and the changes in temperature

during intellectual activity, and also during disease. The results of a long series of careful experiments and observations are now recorded in a volume of over two hundred pages. (London: H. K. Lewis). His conclusions are somewhat at variance with the writings and opinions of some who have attempted or claimed to use his apparatus, but are not, we think, other than would be expected by any one versed in the ordinary laws of physics. He says: "Although reason has been given to believe, first, that the brain (in spite of the non-conductivity of the tissues and the influence of the circulation) is the principal factor in the temperature of the exterior of the head, and, secondly, that small differences of temperature at the surface of the brain may be detected at the outer surface of the head, yet, there is no certainty that the different relative temperatures observed at the exterior surface represent, correctly, either in kind or in degree, the relative temperatures of the corresponding underlying parts of cerebral tissue." He is also of the opinion that his method can not be safely employed in diagnosis or physiological research. As confirmatory of Lombard's conclusions, but entirely independent of them, we learn that at a recent meeting of the Biological Society of Paris, M. Franck gave the result of some interesting experiments on this subject, from which it appears that a very uncertain value attaches to cerebral thermometry as a means of diagnosis. His observations were made, first, with bone and skin in a dry state, and afterwards with the same tissues in an animal which had just been killed. A section of bone three millimeters thick, when applied to the surface of a copper box, whose heat had been increased by one degree, showed no appreciable elevation of temperature. The temperature of the box must be increased at least three degrees before an elevation of one-tenth of a degree is indicated by a thermometer applied to the bone. The skin was found to offer a resistance almost equal to that of bone. Similarly, in an animal which he had just killed, he found that heat applied to deep portions of the brain was either not transmitted at all, or was badly transmitted to the surface of the cranium. M. Franck concludes that we must have at least an increase of three degrees of temperature in the deep strata of the brain before any elevation can be rendered appreciable externally, and that experiments in regard to the superficial temperature of the cranium, ought to be admitted only with great reserve.

In regard to the substance of the brain itself, M. Franck has proved that it is a very good conductor of heat. It follows, therefore that if, in consequence of a lesion, the temperature of the brain rises at a given point, there will also be an increase of heat in the neighboring parts. But little importance must therefore be ascribed, he thinks, to Dr. Amidon's recent researches in regard to the question of cerebral localization.

M. P. Bert said that he was by no means surprised at M. Franck's results. For his part he was convinced that, as regards cerebral localization, but little advantage could be derived from topical thermometry of the cranium.

AMERICAN JOURNAL OF INSANITY, FOR OCTOBER, 1880.

PROCEEDINGS OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS.

The Thirty-Fourth Annual Meeting of the Association was called to order at 11 A. M., May 25, 1880, in Parlor C, of Continental Hotel, in the City of Philadelphia, by the President, Dr. Clement A. Walker.

The minutes of the last meeting were read.

The following members were present during the sessions of the Association:

J. K. Bauduy, M. D., St. Vincent's Institution for the Insane, St. Louis, Mo.

D. T. Boughton, M. D., State Hospital for the Insane, Mendota, Wis.

J. P. Brown, M. D., State Lunatic Hospital, Taunton, Mass.

Peter Bryce, M. D., Alabama Insane Hospital, Tuscaloosa, Ala.

R. M. Bucke, M. D., Asylum for the Insane, London, Ontario.

D. R. Burrell, M. D., Brigham Hall, Canandaigua, N. Y.

H. A. Buttolph, M. D., State Asylum for the Insane, at Morristown, Morris Plains, N. J.

John H. Callender, M. D., Tennessee Hospital for the Insane, Nashville, Tenn.

T. B. Camden, M. D., West Virginia Hospital for the Insane, Weston, W. Va.

John B. Chapin, M. D., Willard Asylum for the Insane, Willard, N. Y.

Daniel Clark, M. D., Asylum for the Insane, Toronto, Canada.

H. F. Carriel, M. D., Hospital for the Insane, Jacksonville, Ill.

John Curwen, M. D., Pennsylvania State Lunatic Hospital, Harrisburg, Penn.

Theo. Dimon, M. D., Asylum for Insane Criminals, Auburn, N. Y.

- B. D. Eastman, M. D., Topeka Insane Asylum, Topeka, Ks.
Orpheus Everts, M. D., Cincinnati Sanitarium, College Hill, O.
F. T. Fuller, M. D., Assistant Physician, Insane Asylum, Raleigh, N. C.
W. W. Godding, M. D., Government Hospital for the Insane, Washington, D. C.
John P. Gray, M. D., State Lunatic Asylum, Utica, N. Y.
Richard Gundry, M. D., Maryland Hospital for the Insane, Catonsville, Md.
John C. Hall, M. D., Friends' Asylum for the Insane, Frankford, Philadelphia, Pa.
Henry M. Hurd, M. D., Eastern Michigan Asylum, Pontiac, Mich.
Walter Kempster, M. D., Northern Hospital for the Insane, Winnebago, Wis.
Thomas S. Kirkbride, M. D., Hospital for the Insane, Philadelphia, Pa.
A. E. Macdonald, M. D., City Lunatic Asylum, Ward's Island, New York City.
C. F. MacDonald, M. D., Binghamton Asylum for the Insane, Binghamton, N. Y.
S. B. McGlumphy, M. D., Dakota Hospital for the Insane, Yankton, Dakota, Ter.
C. S. May, M. D., Danvers Lunatic Hospital, Danvers, Mass.
W. G. Metcalf, M. D., Asylum for the Insane, Kingston, Ontario.
C. A. Miller, M. D., Longview Asylum, Carthage, Ohio.
D. A. Morse, M. D., Dayton Asylum for the Insane, Dayton, Ohio.
Charles H. Nichols, M. D., Bloomingdale Asylum for the Insane, New York, N. Y.
Geo. C. Palmer, M. D., Michigan Asylum for the Insane, Kalamazoo, Mich.
T. O. Powell, M. D., Georgia Insane Asylum, Milledgeville, Ga.
Isaac Ray, M. D., Philadelphia, Pa.
Joseph A. Reed, M. D., Western Pennsylvania Hospital for the Insane, Dixmont, Pa.
D. D. Richardson, M. D., State Hospital for the Insane, Warren, Pa.
Joseph G. Rogers, M. D., Indiana Hospital for the Insane, Indianapolis, Ind.
John W. Sawyer, M. D., Butler Hospital, Providence, R. I.
S. S. Shultz, M. D., State Hospital for the Insane, Danville, Pa.

G. A. Shurtleff, M. D., Asylum for the Insane, Stockton, Cal.

James T. Steeves, M. D., Provincial Lunatic Asylum, St. John, New Brunswick.

J. Strong, M. D. Cleveland Asylum for the Insane, Cleveland, Ohio.

I. D. Thompson, M. D., Mt. Hope Retreat, Baltimore, Md.

Clement A. Walker, M. D., Boston Lunatic Hospital, Boston, Mass.

John W. Ward, M. D., New Jersey State Lunatic Asylum, Trenton, N. J.

H. Wardner, M. D., Southern Hospital for the Insane, Anna, Ill.

J. H. Worthington, M. D., Baltimore, Md.

John S. Woodside, M. D., Assistant Physician, Kings County Lunatic Asylum, Flatbush, N. Y.

Also,

Alfred T. Livingston, M. D., Philadelphia.

I. N. Kerlin, M. D., Superintendent of the Institution for Feeble Minded Children, Media, Pa.

Mr. Gardner A. Churchill, Trustee of the Lunatic Hospital, Danvers, Mass.

Mr. Geo. W. Jones, Trustee of the Willard Asylum for the Insane, Willard, N. Y.

Dr. Traill Green, Trustee of the Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Dr. Wm. Corson, Commissioner of the State Hospital for the Insane, Warren, Pa.

John C. Allen and Henry Haines, Managers of the Friends' Asylum for the Insane, Frankford, Philadelphia, Pa.

The President announced as the Committee on Business, Drs. Kirkbride, Ray and Curwen.

On motion of Dr. Gray, it was

Resolved, That the members of the medical profession of Philadelphia be invited to attend the meetings of the Association.

The Secretary read letters from Drs. Harlow, Stearns and Reynolds, expressing their regret in being unable to attend this meeting. Also from Miss Dix, expressing kindest regards to the members. Also an invitation

from Dr. J. N. Kerlin, of the Institution for Feeble Minded Children, at Media, to visit and spend a day at that Institution, which was referred to the Committee on Business.

The Secretary also stated that Dr. Kirkbride had received an invitation from President Allen, of Girard College, to visit that Institution; also that it was probable that an invitation would be received to visit the new hospital at Norristown.

On motion of Dr. Curwen, Dr. I. N. Kerlin was invited to take a seat with the Association.

On motion of Dr. Nichols, a recess of twenty minutes was taken to enable the Committee on Business to arrange the business of the Association.

On re-assembling, the President announced the following committees:

Committee on Resolutions, Drs. Nichols, Bucke and Bryce. On Time and Place of next Meeting, Drs. Clark, Kempster and Shurtleff. To Audit the Treasurer's Accounts, Drs. Gundry, Eastman and May.

The Committee on Business made the following report, which was unanimously adopted:

Continue this session to 1 P. M.; meet at 4 P. M.

Wednesday, leave the hotel at 9.30 A. M. for the Department for Males, of the Pennsylvania Hospital for the Insane; hold a meeting there at 10.30 A. M.; adjourn at 12 M. to visit the wards; dine at 2 P. M. Leave at 4 P. M. for the Department for Females; hold a meeting there at 5 P. M., and leave the Hospital at 9.30 P. M. for the hotel.

Thursday, meet at 10 A. M. for business; adjourn at 1 P. M.; visit Girard College at 4 P. M.

Friday, meet at 10 A. M. for business; adjourn at 12 M.; leave West Philadelphia at 2.30 P. M., by special

train for Friends' Asylum at Frankford; return in the evening.

Saturday, meet at 10 A. M. for business.

The Treasurer then laid before the Association his accounts, which were, on motion, referred to the Auditing Committee.

Dr. Steeves then read to the Association the memorial of Dr. John Waddell, which was, on motion, directed to be entered on the minutes of the Association.

The committee appointed to prepare a memorial record of the death of the late Dr. John Waddell, of Canada, a member of this Association, beg leave to present the following:

John Waddell, whose father was a native of Shotts, Scotland, was born in Truro, Nova Scotia, on March 17, 1810. He was the youngest son of Rev. John Waddell, an eminent Presbyterian clergyman, and brother of the late James Waddell also a distinguished member of the Presbyterian church. The early part of his education was received at the Grammar School in Truro; subsequently he attended the Pictou Academy, where he spent several years completing a full course of liberal culture. At the end of this period he engaged in business, continuing for one year, but finding this enterprise uncongenial, it was abandoned. In the year 1834 he commenced the study of medicine, in his native place, under the preceptorship of Dr. Lynd. He next proceeded to Glasgow, continuing his medical studies there, and on the 18th of October, 1839, he received his diploma from the Royal College of Surgeons, London. After obtaining his degree the Doctor attended medical lectures in Paris during the winter of 1839 and 1840. In the summer of 1840 he returned to Truro, Nova Scotia, and entered upon the practice of his chosen profession. During the following nine years he was engaged in general practice, and being eminently successful he extended his name and fame far beyond the immediate sphere of his labors. In 1849 Dr. Waddell was appointed Medical Superintendent of the Provincial Lunatic Asylum, at St. John, New Brunswick, and in December of that year he entered upon the duties connected therewith. In the management of this Institution the Doctor found a sphere congenial to his order of mind, and soon won a reputation more than provincial. In a

pre-eminent degree he possessed the qualities of mind and heart to insure success in his chosen field. His administrative ability was of a high order; he was prudent, practical and economical in his management, and averse to the use of too definitely written rules, preferring a frequent resort to himself as the authority in the house which he controlled. His fine personal, gentlemanly bearing, suave manner, and cheerful disposition, gained for him at once the confidence and esteem of associates, and the public as well. Whilst Dr. Waddell was urbane, generous and forgiving, yet he possessed great firmness of character. When opposed in his cherished views or plans his opponent found a "foeman worthy of his steel." Dr. Waddell continued Superintendent of the Asylum at St. John, from December, 1849, until the first of May, 1875, a period extending upwards of twenty-six years, and during all that time he labored with great assiduity, and with marked success, in the medical treatment of the patients, the general management of the house, and in all that pertained to the prosperity of the Institution. Far the best part of his life was devoted to a noble purpose, caring for the helpless and insane, going in and out among them at all hours of the day and night, ministering to their diseased bodies and minds, performing the office of a faithful physician. Early in the history of this Association, Dr. Waddell became an active member, taking a deep interest in its work, and earnestly promoting its welfare. His agreeable social qualities, varied information, and practical good sense made him a great favorite among the members of the Association.

On the Doctor's retiring from the superintendence of the Asylum he again took up his residence in Truro, his birthplace, where he himself and his friends hoped that he might enjoy many years of quiet and peace after his arduous life duties had been so well performed. But this hope was not realized, the good Doctor had almost finished his course, he had well nigh fallen before his armor was removed. The watching, the anxiety too long continued, without sufficient aid, had so wrought upon his physical system and mind that a nervous affection fastened upon him to which he soon succumbed. On Thursday, the 29th of August, 1878, our friend, a Christian gentleman, passed away peacefully to his rest and his reward.

JAMES T. STEEVES. ;

CALVIN S. MAY.

The Secretary read a telegram from Dr. C. H. Hughes, conveying good wishes and prosperity to the members, and regretting his inability to attend this meeting.

Dr. May introduced to the Association, Mr. Gardner A. Churchill, Trustee of the Danvers Hospital for the Insane, Mass., and Dr. J. B. Chapin also introduced Mr. Geo. W. Jones, Trustee of the Willard Asylum for the Insane, Willard, N. Y.

On motion of Dr. Gray, the Association adjourned to 4 P. M.

The Association was called to order by the President, at 4.30 P. M.

Dr. BRYCE. Mr. President: Perhaps I ought to state that, when I was appointed to prepare this memorial sketch, I wrote to Dr. Powell, the successor of Dr. Thomas F. Green, and in presenting the facts, he tendered this memorial, which I did not think proper to change at all, but left it as it is.

Dr. Bryce then read the memorial of Dr. Thomas F. Green, prepared at the request of the Association, which was, on motion, directed to be entered on the minutes of the Association.

Dr. Thomas F. Green was born in Beaufort, S. C., on the 25th of December, 1804; he died in Midway, Ga., on the 13th of February, 1879, of apoplexy, while Superintendent of the Georgia Lunatic Asylum. His parents were of the best class of Irish people. His father, a warm-hearted, highly-educated, enthusiastic young Irish patriot, joined in the ill-fated rebellion of 1798, was forced to flee the country; his wife, who was a Fitzgerald, a lady of noble blood, came with him to America.

He had no fortune save his talents, no friends save those whom he won by his virtues.

He began to teach, and as a teacher, came to Beaufort, S. C. Here his eldest son, Thomas Fitzgerald, was born. He removed to Savannah, Ga., where he taught a high school, and was

elected a Professor in Athens, in the Georgia University. He afterwards removed to Milledgeville, the capital of Georgia, and here the son was educated. He was past his majority when he studied medicine and began to practice. He located in Milledgeville, and was doing well as a physician, when the current of his life was changed and turned into a direction which was to be full of blessings to his race. A Northern philanthropist who was interested in the welfare of the insane, visited Milledgeville, to suggest and advocate the establishment of an asylum for them.

He called a meeting of a few gentlemen of broad views and generous hearts, and laid his plans before them. The warm heart of Dr. Thomas F. Green became much interested in the great question presented, and he gave it close attention. He was connected with the first effort made to secure the grant from the Legislature.

In 1846 he succeeded Dr. Cooper, as Superintendent of the Asylum. He continued in the office for thirty-three years. It was very small when he took hold of it. It became a grand institution—one of the largest in the Southern States—when he was called by death from it. Dr. Green, in person, was short, stout, of broad, grand, humane countenance; in his youth, handsome; and in his old age, venerable. He was full of life, cheerful, merry, courteous, considerate. He was a sincere Christian, in his home life, a model; one of the most benevolent and unselfish of men. He was devoted to the Institution, he literally lived for the Asylum. He thought of it, talked of it all the time. His success in the management of it was marvelous, and the blessed results of his work can not be told in time. He was a delightful companion, a true and sympathizing friend, a man whom all loved, and one worthy of all the honor heaped upon him. The moral grandeur of his character was best illustrated by the interest he manifested in the unfortunate.

Dr. Gundry, from the committee to audit the Treasurer's accounts, reported the accounts correct.

The receipts, \$287.89, the expenditures, \$172.65, and the amount on hand, \$115.24, and they also recommended an assessment of five dollars on each member, for this year.

On motion, the Association adjourned.

MAY 26, 1880.

The Association was called to order at the Department for Males of the Pennsylvania Hospital for the Insane, by the President, at 11 A. M.

Dr. Curwen introduced to the Association, Dr. Traill Green, Trustee of the Pennsylvania State Lunatic Hospital, and Dr. Wm. Corson, Commissioner of the State Hospital for the Insane, Warren, Pa., who were invited to take seats with the Association.

Dr. KIRKBRIDE. By some inadvertance at the meeting at Providence, last year, I omitted to do what I had fully intended—to move the election of Dr. Daniel Hack Tuke, of England, as an honorary member of this Association. I beg leave, now, to do what I omitted to do then. I need scarcely add that Dr. Tuke is too well known to all the members of this Association, to require anything to be said by me in reference to him, his character or his services in our specialty. His name is known as belonging to a family that, probably, has done more to alleviate the condition of the insane, than any other in Europe. He is a well known author and critic, and, above all, he has been particularly just, at all times, to his American brethren. I am sure that many members who know him personally will agree to all I have said in reference to him.

Dr. GRAY. I second the motion. I am sure I can confirm all Dr. Kirkbride has said, from personal observation.

Dr. NICHOLS. I think the Association must be ready for the question, Mr. President.

The motion was unanimously agreed to.

Dr. C. F. MacDonald then read to the Association, the report of a case of Feigned Epilepsy. Published in this JOURNAL for July, 1880.

The PRESIDENT. Gentlemen of the Association, the subject of feigned epilepsy is before you. Has any gentleman anything to offer on it?

Dr. NICHOLS. Mr. President, it seems to me it would be interesting if the members of the Association, present, would briefly report any cases of feigned epilepsy that have come under their

observation. With an experience, now, of upwards of thirty years in the care of the insane, and somewhat longer experience in the profession, I have met only one case, and that was not an insane man. It was in the general naval hospital that was established on the grounds of the Government Hospital for the Insane, on the breaking out of the war. Not long after it was established, a sailor feigned epilepsy for the purpose of obtaining his discharge from the service. It was detected by the surgeon in charge, the late Dr. Ninian Pinckney, of the navy, and, of course, the patient did not gain his object. I saw that man in several of the paroxysms. He was not, of course, a medical man. He was a sailor, perhaps rated as a landsman. He had not been educated. While his feigning was rather clumsy, I thought it remarkable that a man in his position should be able to do it as well as he did. After he had been pronounced a malingerer, I had a conversation with him, in respect to his epilepsy, and he told me he had seen but one man have a fit in his life—and that was a fellow sailor—so that his imitation was that of a single example of epilepsy, and it was really quite remarkable that he did it as well as he did.

My own impression is that feigned epilepsy is quite uncommon in this country; that the class of men who have an object in feigning disease of any kind, is very little acquainted with epilepsy. Then there is a dread of the disease, that makes men of that class shrink from it, if it occurs to them to feign it—a dread, I mean of the effects of feigning it upon themselves.

Dr. GODDING. I listened, with a great deal of interest, to the paper and the description of the simulated form of insanity, of which, in my experience of about twenty years in hospitals, it brought to mind, as it did to Dr. Nichols, but a single case. I have seen in hysteria fits feigned, but they are a class by themselves, unlike the one just described. The case observed by me was a malingerer from a State prison. The man was brought to the institution for the insane, suffering, apparently, from deep melancholia, but clearly a case of malingering. He was put in a small ward, for observation, and in that ward was an epileptic who always fell in a peculiar manner and with a peculiar cry. One morning, as I was making my tour through the wards, I passed this malingerer, sitting beside the epileptic patient. I had hardly done so, when he arose and gave a cry perfectly imitating the epileptic man, and fell in the same manner as he would fall. I was convinced he was playing it. I caught him up, stood him on his feet and told him to behave himself, and he did behave—slinking back to his seat in

a sheepish way. He was sent back to prison the next day, with the report that he was a malingerer.

Outside of the criminal class, I am satisfied it is rarely if ever, that this malingering takes place. I have met with but this one case where there was an attempt made to imitate epilepsy.

Dr. BUTTOLPH. I was much interested in the incidents of the case related by Dr. MacDonald, and feel obliged to him for the pains he has taken in collating the facts. I have no special experience of a similar kind to relate.

Dr. GRAY. A number of years ago, a man was sent from the jail of Westchester County, New York, to the asylum at Utica, under the charge of forgery, with a certificate of mania with epilepsy. The insanity was said to have come on soon after his arrest. He was an intelligent, good-looking young man, and evidently had considerable education. When brought to the asylum he had on a military coat with heavy stuffed breast, and passed under the name of Major Edward H. Merritt. His history afterwards developed a great number of *aliases*.

He had a fit shortly after he was brought in, in my presence. He suddenly began to turn his head to one side with a tremulous motion, and with a convulsive movement of the right arm and hand, beginning with the thumb, then, uttering a slight cry he sank to the floor. I noticed no change in color, no pallor preceding the convulsion, though I was looking at him when he passed into the fit. I took out my watch and remarked that he had been rather slow in falling and added, "I will now time the phases of this attack," and kept talking until he had continued in the fit five or six minutes. I made no experiments with him, that is, did not attempt to open his eyes, or indeed did not attempt to interfere with him at all. After coming out of the fit he scrambled over the floor, rubbed the saliva over his face, which had been slightly tinged with blood. After he got up he looked about in a confused manner and muttered to himself.

The history given by the officer who brought him was, that he had passed several forged checks on parties in Boston, Mass., and in Westchester County, N. Y., some years previous to his arrest and then disappeared; that about ten days before his arrest he attempted the same thing, and was identified and arrested. On entering the jail he complained of pain in the back of his head, the next day he became wild, and for three days was highly maniacal, noisy, boisterous, raving about military matters and had convulsions. We got, subsequently, the history that on a former occasion

he had assumed the name of Stansbury, and passed a forged draft upon persons having a military academy in Westchester County, proposing to pay something in advance for a relative whom he desired to place there. He received in return a certain amount of cash, the difference between the draft and the proposed payment. He had victimized other schools about the same time in that vicinity. When he appeared again in the neighborhood, as Major Merritt, he was detected and immediately arrested and placed in jail to await his trial for the offense. On his admission to the asylum, and for a few days afterwards, he manifested rather a condition of dementia and silliness; and no maniacal symptoms. Soon after this he manifested another epileptic attack, fell upon the floor and immediately passed into a convulsion. I timed him again, examined the condition of his muscles and his eyes, and was satisfied, as before, that he was feigning, and said, while he was in this fit that he was prolonging the first stage entirely beyond anything reasonable. I said to him: "Now, you are putting some things not necessary in the fit, and leaving other things out; on the whole it is a good fit and you have very good command of yourself, but it is a fraud and not worth while repeating." I then told him to get up, that there was no use in attempting anything further, and he said afterwards that he had lost his reckoning and was confused by what was said to him while he was feigning the convulsion, and added, "I would like to have a private conversation with you." He then said, "Yes, it is put on; I will give in." He said, however, that he had been insane and had had epilepsy, and referred me to several persons to whom I immediately wrote, and confronted him with the replies of one of these gentlemen, but he reiterated his previous assertions of having been insane and immediately fell and passed into a violent convulsion.

I have alluded to his stuffed coat. An attendant afterwards examined it and thought there were papers in it, and opening the lining from the inside, we found a number of blanks from various business houses and banking establishments, and letters apparently from a number of distinguished persons in the State of New York, in Washington, Pennsylvania, Missouri, Kentucky and Massachusetts, places where he afterwards admitted he had practiced his various crimes of passing counterfeit money, forgery, &c. We found one letter of recommendation directed to the president of one of the seminaries in the State of New York. This, subsequently, led to his recognition as a person who, under some other name, had not long before passed a forged draft upon that institution. We

found one letter and some memoranda showing that he had operated rather extensively in Missouri, and by addressing one of the parties, a woman, succeeded in getting through the post office a letter from her showing that she was a confederate in all his matters there. He afterwards said that he had practiced mental disturbance or these fits for a great many years, whenever he was placed in a position of evident danger, and that in a number of instances he had got off as "a poor epileptic;" that he had been in both prisons and asylums as the result of his crimes, and that from them he had been released by feigning epilepsy and insanity.

Dr. NICHOLS. Asylums or prisons?

Dr. GRAY. I am giving what he said, but he was in both and escaped from both.

Dr. NICHOLS. You said asylums in your remarks, but I thought prisons were meant by what followed.

Dr. GRAY. He had been convicted by a jury, and been sent to an institution as an insane person, having epilepsy and mania, and, in some instances, had escaped punishment on the plea of genuine epilepsy and genuine insanity. He had some scars about him. He told me that he usually cut his tongue with a little sharp point that he kept on his little finger nail, that he could sharpen enough to cut the side of his tongue and produce the necessary amount of blood for the saliva in epilepsy. He said he had studied the subject very carefully, and up to that time it had been as good a refuge as a man could have in a day of trouble. He was, subsequently, remanded to jail and sentenced to Sing Sing.

By the way, while he was in the asylum, he took some letters that I gave him to examine, and imitated them so perfectly, that it was difficult to tell which were the genuine and which were the counterfeit. He had recommendations such as he gave to the various places to secure admission to institutions of learning, as an agent for various persons, or to secure favor until he had accomplished his object. Among the letters of recommendation, he had one purporting to be from Governor Seymour. This he had written, he said, while in Washington. He had written to Governor Seymour, saying he was there for a position, and was the son of a friend of the Governor's, that he did not ask the Governor to recommend him, but to say that his father was a respectable man and prominent in politics. He said he knew that he, the Governor, could not recommend him personally, but it would give him the means of communicating with the authorities. His object was to get the handwriting and the signature of the

Governor. He had forged recommendations from a number of other persons, such as Hon. C. M. Clay, of Kentucky; Governor Hunt, of New York, and numbers of letters of bankers of New York, Boston and Philadelphia. He said he had secured the signatures of bankers by having a *bona fide* small transaction with them. In that way he could easily write a letter and attach their signature. Sometimes he would write the letter as though it were written by a clerk, and sign the name of the firm.

That was a number of years ago, fifteen or sixteen at least. He was tried after leaving Utica, and sent to Sing Sing prison, and was pardoned out on letters and recommendations forged by himself, getting his case before the governor for pardon, by means of a few of the letters that had escaped observation in another part of his clothing. He did not keep all his treasures in one place. Since that time he has figured under various names, and within two years has feigned paralysis, getting out of prison by feigning that disease, and securing a pardon before the expiration of his sentence, appealing to the sympathies of persons as a "poor helpless paralytic." I did not, at the time, or afterwards, report this case of Merritt, because after getting out of Sing Sing prison in the manner stated, he was brought before the United States authorities in connection with manufacturing and passing counterfeit United States money, and came under the notice of Major Bolles, of Washington, who then asked me for all the various papers I had. Merritt then passing under some other name having mentioned me, Major Bolles wrote to me. I sent him the various papers and matters of evidence we had of Merritt's crimes and of his feigning, and Major Bolles made a report of the case in the *Old and New*.

The articles were published in the numbers for February and March, 1871, under the title "*Porter-Humphreys-Hardin*," which were but three out of a multitude of *aliases* which this man had assumed during his extraordinary career. The first article is confined chiefly to an account of his exploits during the six months of 1869, in which he was at large, after having escaped from the State Lunatic Hospital at Worcester, Mass., to which he had been transferred, on the pretense of insanity, from the Penitentiary at Charlestown, to which he had been sentenced in 1865 for ten years, on account of forgery and swindling at Pittsfield, under the assumed character of the "rebel Major General Humphreys," recorded on the prison books with an "*alias Hardin*." It was under this last name that he kept up a long correspondence with Gerritt

Smith, in which his skill in forgery enabled him to create the impression that he had an irresistible array of petitions, testimonials, &c., to bring to bear upon the Governor for his pardon, signed by many of the most distinguished men in the country, generals, senators, clergymen and others. In fact, by such means he did once obtain a pardon from Governor Seymour after his discharge from the Utica Asylum, in 1862. This very successful campaign of 1869 was distinguished by an exploit at Fredonia, Chautauqua County, where he succeeded in passing himself off as "Governor Porter, of Arkansas," he having been a pupil in the Fredonia Academy in 1853 and 1854, his *real* name being Porter, and having boarded with two ladies by the name of Higgins, whom on this occasion he swindled with a forged draft for fifty dollars, in pretended consideration for their former kindness. After several other forgeries and bank frauds, he disappeared, to turn up at Quincy, Ill., in November, 1869. In December he was recaptured and returned to Charlestown to serve out his sentence.

It appears that he began his career of crime at an early age. Before 1862 he had operated under more than fourteen *aliases*, in almost half the States of the Union. He was in Sing Sing from March, 1862, to December, 1863; in Fort Warren, Albany Penitentiary and Fort Delaware, from March, 1864, to October, 1865; in Kentucky jails and State prison from September, 1866, to May, 1867, and from October, 1867, to June 1869, in the prisons and insane hospital of Massachusetts, where he was returned in December, 1869, after six months' liberty. It is almost impossible to give any adequate idea of his phenomenal skill in crime, without copying the whole of Maj. Bolles' papers.

The second article, (March, 1871), gives what is of more interest to the profession, his *five* different attempts, mostly successful, to pass himself off as insane, and to feign epilepsy. The first of these was in Westchester, in 1859, after being arrested for a forged check, under the name of *Westcott*. In jail, before trial, he so well counterfeited insanity as to deceive several physicians, and the District Attorney entered a *nolle prosequi*, when he was transferred to the Almshouse, whence he soon disappeared.

The second was at Cape Girardeau, in 1861, under the name of *Benjamin*, a relative of Senator Judah P. Benjamin, after being indicted for forging a check. In jail, and when brought into court, he simulated acute mania, by incessant and frightful outcries, struggles, howls, oaths and foaming at the mouth, till the court felt obliged to release him as insane, when he soon disappeared again.

The third was in 1862, at Sing Sing and Utica, under the name of *Merritt*, where he swindled a gentleman whom he had once before victimized under the name of Stansbury. In jail, at White Plains, he was examined by three physicians, two of whom pronounced him insane. After an exhibition in court, Judge Robertson, although he suspected him of feigning, ordered him to Utica, where he was detected, as already related. He was remanded for trial and sentenced in December, 1862, but pardoned in December, 1863, on the urgent application of Ex-Governor Hunt, who had been led to believe, by his forged letters, that Merritt was a nephew of United States Senator Colquitt, of Georgia!

The fourth was at the Charlestown State Prison, in 1868, about five months after his sentence for the Pittsfield crime, and was successful enough to cause his transfer, in June, to the Lunatic Hospital at Worcester. Here, notwithstanding his simulation of "paroxysmal mania," he was detected in conspiring with others in plans for escape, and was sent back to prison in July.

The fifth was in February, 1869, when he played his trick so well again that the Commissioners resolved to have him sent to Worcester again, "for further observation." Dr. Bemis appears to have retained his opinion, unchanged, that the man was an "unmitigated rascal." His appearance and condition are thus described in *Old and New* :

"When I saw him in February," says Dr. Bemis, "he was apparently a drivelling idiot. He had refused food until he was really ill. His beard and face were covered with saliva, his hair uncombed, his clothes slipping off from his body; his eyes closed much of the time, he rolling upon the floor or bed; and, when raised up, drooping down again quickly, and all the while engaged in repeating, in a muttering manner, broken sentences, sometimes referring to the war, and sometimes to his own sufferings.

With all this appearance, his muscular efforts were perfect, complete, and graceful.

On admission to the hospital, February 16, 1869, he evidently acted. Came in cringing, and shrugging his shoulders, but recognized those whom he met here before."

"Dr. Tyler, of the McLean Insane Asylum, was one of the commissioners that examined Hardin in January and February, 1869. In a letter to me, written after Hardin was last sent to Worcester, he says:

Hardin was in a very reduced state, apparently very weak, thin in flesh, haggard in looks, in constant motion, starting as if frightened, muttering, and often making a loud noise, so as to create a disturbance. His pulse was high, his tongue was dry, skin clammy. He refused food, vomiting what he was made to take, and retching when he had not been taking food. He passed many sleepless nights consecutively, being watched, and the testimony showing that he was not still a moment.

I believed him insane. Dr. Bemis thought him *shamming*. I have no doubt but he *shammed*. I think he made symptoms. I think he did things which he could have helped; and all for the purpose of appearing insane, and so being transferred to a hospital, and so escaping.

But I do not believe he made *all*, nor do I think a sane man would conduct as he did. The very fact of his doing just as he did, and being able and willing to do so, was a proof of insanity."

I have no doubt this man was an expert in feigning. He was a man of pleasant address, and said to me that when he had leisure and time, and was not really in the presence of a doctor he thought he could give a very good fit, and deceive almost any one. As Dr. Godding has said, I have seen hystero-epileptic fits, but they are a very different class from feigned epilepsy.

Dr. SHURTLEFF. I have not observed any case where the party relied, in his acting, upon convulsive fits alone. In the trial of a notorious case in Sacramento, Cal., last fall, for murder, the defense was insanity. The defendant pretended to be an epileptic, but the rôle he played was that of *petit mal*. He pretended to have fainting spells, and did, at one time, show slight convulsive movements in those spells, as I am informed, and afterwards he exhibited attacks of violent mania. He evidently had obtained some knowledge from a previous trial, or from some articles that had been written upon the obscure forms of epilepsy. The forms of his insanity, as manifested, were various and mixed, and very clumsily and ignorantly simulated. He pretended also to be partially paralyzed, that one side of his tongue was affected in that way. As evidence that his conduct was that of a malingerer, after the jury had decided that he was sane, and he was informed by the sheriff that he would be executed on the day appointed, his mind became lucid. He attended to the affairs that needed attention, as to business, as any man would who was about to die. He had no more attacks of paralysis, or of *petit mal*, or of mania. This is the only case I have to report. I have seen no case of feigned epilepsy of the convulsive or *grand mal* variety.

Dr. CAMDEN. I have no cases of the kind referred to in the paper to report. There was one case during the war, I believe, of pretended epilepsy. He was a spy who came from the southern army into our country, and having gathered up all the news he could around the town, would go back and report. He came in once just before a raid, got all the points he wanted, and went back, after having a few fits. I was talking to an officer about it some time after, and he said "was old Fitty in," I said "yes, what

about him?" He said he was one of the best spies they had. He can go into a town and have a fit or two, and afterwards walk about the town and stores and gather up the points very accurately, even to drawing fortifications, &c. I have not come across any such cases in hospital life.

Dr. BAUDUY. I do not know that I have much to add to what has been said. I took great interest in the ability and skill displayed by the Doctor in recognizing this case. We all know the difficulty of recognizing a genuine case from one that is well feigned. As regards the vertiginous characteristics, I would think an expert physician would not be mistaken in that respect. As regards the fainting and falling to the ground and the convulsive manifestations, it occurs to me that there are numerous tests by which the false may be recognized from the genuine. The condition of the sphincters is a matter of the greatest importance, their relaxation during the convulsive paroxysms constitutes a point of diagnostic significance. It occurs to me that the sudden appearance of pallor, in the commencement of the attack, would be an invariable means of recognizing these doubtful cases. This pallor can not be readily simulated. There are persons who can blush and cry, and otherwise control the vaso-motor centers to a great extent; but genuine pallor can not be well imitated. Then accompanying sleep or stupor can be certainly recognized as to genuineness. As to the laceration of the tongue, there are two varieties of convulsions, the epilepsy where the hypoglossal nucleus is involved, in which the patient bites the tongue, and the opposite form, where the tongue is not bitten. Only one case of alleged feigned epilepsy has come under my observation. This was rather a so-called case of feigned epilepsy. He is now in the State Penitentiary, at Jefferson City, Missouri. I was impressed from all that had been gathered that it was not a feigned case, but the authorities judged otherwise, and he was convicted of murder and sent to prison. The circumstances are somewhat peculiar. The person is a young German by the name of Max Klinger, who atrociously murdered his uncle, a man who had befriended him, and had always been kind to him. It appeared during the legal examination of the case, three trials having taken place before it was finally adjudged, that this boy had always been kindly treated by his uncle. There was no quarrel and no incentive whatever for the crime. This boy of about eighteen, instead of killing his uncle at night, shot and murdered him from behind, one morning as he was opening his tailor shop. The boy then made an onslaught

on his aunt, without any previous quarrel or known occasion for anger. He then, without washing the blood from his hands, or even putting on his coat, with the pistol still in his pocket, got on a train bound for Jefferson City. On the authorities telegraphing that they believed he was on the train, he was captured in one of the cars and brought back to St. Louis. It was stated on the trial of the case that he had declared to a neighbor, if his uncle scolded him any more he would certainly kill him, and therefore the ground of premeditation was taken by the prosecution, as antagonistic to the possible assumption of epileptic insanity. The State Attorney took the ground that premeditation was inconsistent with all forms of epileptic insanity. At the time of the first trial, which was some years before the case was finally disposed of, I took the ground that the prisoner was an epileptic. That was previous to the time that I had had the opportunity of reading the articles of Dr. Echeverria and others, taking the ground that premeditation is not necessarily inconsistent with epileptic insanity. The reason why I judged the boy to have been an epileptic, and therefore entitled to the benefit of a doubt on the subject, (which would save him, at least, from being hung), was, first, the motiveless character of the crime; that there had been no quarrel, but on the contrary, his uncle was his friend. Secondly, the boy bore a well-marked depression of one of the cranial bones. It had been admitted during the trial, by deposition, that in Germany, whilst playing in a barn, he had received an injury causing this cranial depression; and that subsequently, during his childhood, he had had a number of epileptic attacks. Depositions of a surgeon to that effect were read during each of the three trials. Notwithstanding this, it was claimed by the State's Attorney, as he had never been seen to have had an epileptic attack during his sojourn in this country, that therefore the theory of epileptic fury was not tenable, notwithstanding the authentic character of the depositions to which I have just alluded. He was sentenced to the penitentiary for life, and narrowly escaped being hung. The character of the crime having been motiveless, and the murderous onslaught having been on several persons, the history of epilepsy in childhood, and the cranial depression, all concurred to make me believe that the homicide had been committed, either in a paroxysm of mental or larvated epilepsy, or at least during a pre or post epileptic outburst. It is possible, also, that he might have had some form of nocturnal epilepsy, without its being noticed, or a form so masked that it was not recognized, or, perhaps, the intervallary

condition described by Salnet. He has now been in the State Penitentiary, at Jefferson City, seven or eight years, I think, and has never been known to have had any attack of epilepsy during his incarceration.

I mention the case simply because it was one that elicited considerable attention at the time. I took the ground, and still take it, that he was entitled to the benefit of the doubt, as the victim of some form of epileptic insanity.

Dr. GRAY. The Doctor referred to the slight pallor of the face at the commencement of the attack, to which I alluded in my remarks. I have seen this in many cases. It would only be observed as one of the earliest phenomena, and it is usually very transient.

On motion of Dr. Curwen, the further discussion of the paper was postponed until the meeting at five o'clock.

After passing through the wards of the Department for Males, and partaking of the bountiful collation provided, and then at 4 P. M. passing through the wards of the Department for Females, the Association was called to order at 5.30 P. M., by the President.

The President read a letter from Dr. Joseph Workman, expressing his continued interest in the Association, and his regret at his inability, by reason of advancing years, to attend this meeting; also a letter from Dr. E. Mead, regretting his inability to be present with the Association at this time.

The PRESIDENT. Discussion on the paper read this morning, on "Feigned Epilepsy," is now in order.

Dr. EVERTS. Four years' constant observation of soldiers in the field, from the special observation of a regiment, to the general observation of a corps, furnishes me with recollection of but one case of feigned epilepsy; and I do not credit myself with any particular sagacity in detecting the case, because I succeeded through the soldier's captain (the man had imposed upon his officers and comrades), in getting the malingerer thrown off his guard, to have a fit for my special benefit, by appointment.

A doubtful case occurred in Indianapolis, last year, complicated by homicide. The commission of the homicide was so atrocious as to create a prejudice against the prisoner. He was tried, and defended on the ground of insanity, incidental to epilepsy. The testimony respecting the epilepsy was somewhat conflicting, opinions being divided among those who had observed the manifestations of the disorder. The prisoner listened, himself, to the testimony with a great deal of attention. He was convicted, but got a new trial. He began immediately to exhibit epileptic convulsions, or, perhaps, simulated convulsions, in jail. He was observed by several physicians, who did not agree in opinion, some pronouncing the disorder epilepsy, and others regarding it as hysterical, or feigned epilepsy. He was convicted on the second trial and executed. I believe it was the atrocity of the deed, and the absence of a motive, (which to many minds would be an indication of insanity), that secured the verdict against him. It was, at least, a doubtful case. These are the only two cases that occur to my mind.

This paper, however, was interesting to me in the light of its bearing upon medical jurisprudence. It was interesting, too, in a psychological point of view, as demonstrating the fact that all minds are very much interested in the biography of successful and ingenious criminals, and also in the ingenuity of excellent and successful detectives.

Dr. CLARK. I am afraid if he had not been a criminal, and thus rousing suspicion, that I would have been deceived also, as well as others had been before, by this adroit imitator. Most gentlemen would have been led astray under the circumstances, were it not that his being a criminal, and having motives to assume these fits, would lead us very strongly to suspect him, especially if these simulated seizures were not consistent throughout. I do not attach so much importance as some do to certain symptoms, manifest, it may be, in a majority of such cases. The particular turning of the thumbs towards the palms of the hand is not always found. Neither should the relaxed condition of the sphincters be taken as an absolute test in such cases. Neither is that particular pallor referred to always present. A number of characteristic symptoms should be grouped together and considered, in a case where any suspicion rest, before a positive opinion could be given. I confess if that man had come under my observation, and had imitated epilepsy so well in all its details, as stated by Dr. MacDonald, I should have been slow in coming to a conclusion as to its being a case of feigned epilepsy or not.

Dr. HURD. There seems to be on the part of many patients whose minds are enfeebled, a desire to make themselves notorious by imitating the characteristics of patients who attract a good deal of attention. I have a patient who has been under treatment for a number of years who simulates epilepsy quite successfully. He has, of course, witnessed many attacks among his associates, and has learned to simulate them by crying out, falling down and imitating other characteristic phenomena of the disease. He acts thus because he knows that it affects other patients unpleasantly, and creates consternation among new patients. After an attack is over, he has been known to confess privately to the attendant, in a jocular way, that it was feigned. In my opinion much of the feigning of epilepsy among the insane in asylums, (I do not refer to the criminal insane where another motive is present), is of this character and must be considered merely a symptom of dementia.

Dr. BROWN. I think I have seen no cases of feigned epilepsy, and therefore I am not in a position to speak on the subject. I was very much interested in the reading of the paper.

Dr. DIMON. I do not think I can add anything to what has been said on the subject, only to make a practical suggestion from experience with feigning epileptics among criminals, and that is, of a means of settling the question whether a particular paroxysm is feigned or not. To ascertain whether it is a paroxysm of *grand mal* or a feigned one, try something that the person does not expect, that he has no reason to believe will be applied to him as a test, and the effect will generally be to restore him immediately to consciousness long enough to prove that the epilepsy is feigned. We are in the habit in Auburn prison, where attacks are not unfrequently feigned, of making an application of a bucket of ice-cold water. It will, almost invariably, restore a feigned case to sudden temporary consciousness, which would not be the case in true epilepsy. This simple practical suggestion, as a means of testing any doubtful case, is all I have to offer on the subject.

Dr. RAY. I have no case to relate, but I beg permission to call attention to one fact in the case related by Dr. MacDonald which does not seem to attract the notice, I think, its significance demands. You will observe that the degree of perfection which this man had obtained in simulating epilepsy was the result of a great deal of practice, starting probably with some very demonstrative examples of the disease. It is an all-important point every time, and at all times, and especially so in these cases where simulation is suspected, to ascertain the person's history. This is always needed in

order to make assurance sure. When a man exhibits epilepsy under a criminal record, and it appears from the evidence in the case that he has never manifested the disease before, or had an opportunity of seeing it—and such facts may be, in some cases, established, and in many more cases, be rendered very probable—I can hardly conceive that there should be any doubt left as to the true character of the case. I can hardly conceive how a practical expert can help detecting a case of pretended epilepsy occurring in a man who has had no practice, no experience, who knows it only by hearsay. Hence the propriety always of ascertaining the history of these people. I must say I consider it about impossible that a person who had never had experience of this kind, can so simulate a fit of epilepsy as to deceive any man of any skill at all.

There is another consideration suggested by the reading of the paper. Experts themselves are liable to put too much stress upon their own personal experience. They are apt to form an ideal of epilepsy upon cases which have made the strongest impressions upon their minds; and yet they may not represent the disease absolutely. We all know that epilepsy, as well as other diseases, has numerous phases that may not be easily brought under the same category; and unless the expert can emancipate himself from the conception which a few cases have left upon his mind, I think his test may fail.

Dr. A. E. MACDONALD. I can not say that I have had any very recent experience that bears upon the subject of Dr. MacDonald's paper. Since my connection with the insane asylum, I do not know that I have had a case of feigned epilepsy. The few malingerers I have had, feigned insanity without the accompaniment of the convulsive condition. But some years ago while connected with the hospital for epileptics, in New York, I saw a good many cases of feigned epilepsy. They were mainly inmates of the prisons of the department, who feigned epilepsy in order to be transferred to the hospital, on account of the greater liberties and ease they would have there. As a rule, the feigning was very bunglingly done, and detection was not a difficult thing.

I have seen feigning too of the convulsive seizures on the part of those who were really epileptics. They would do this at times for the purpose of securing immunity from work, or better diet. I have seen one case also which was similar, in one respect, to the one described by Dr. MacDonald, though the person was really an epileptic. He was a thief, and his confederates used him for the

same purpose that the man Dr. MacDonald described had been used, that is as a decoy for victims. Of course, in hospitals he had every opportunity of observing the seizures in others, and also had experience himself; and they found him very valuable in gathering a mob and enabling them to pick pockets. He was certainly a very clever feigner of the convulsions, and it was often difficult to say whether the convulsion was real or not. An important point that the Doctor reports, is the insensibility to pain that the man manifested, or rather his power of control and display of insensibility to it. That is very characteristic of these men. I have often myself been very much impressed with their power to control any manifestation of the sort where tests were made upon them. This feigning of epilepsy, or a convulsive condition, as a gentleman has said, is, I think, not very common in this country; but in the larger cities of England it is very common, and the policemen there have a rough and ready test based upon the supposed sensibility to pain, the nail of the policeman's thumb being pushed under the nail of the patient's. The pain that that produces is generally sufficient to determine pretty accurately when there is feigning. But in the case of Dr. MacDonald some of the severest pain must have been suffered, and the patient controlled himself without making any sign.

Dr. KEMPSTER. I have no experience to relate in reference to feigned epilepsy in hospitals for the insane. But during the war I had charge of a malingerers' ward in a hospital at Baltimore, where those men who had escaped the vigilance of the field surgeons and others, were sent, before final discharge. While connected with that branch of the service, we had brought, into that institution, a soldier. I can best describe his appearance, perhaps, by saying that he was a lean, lantern-jawed man, with sallow complexion. He was described as an epileptic. He had bloody saliva, and in great abundance. The rotation was well marked, and many of the common signs, but from certain observations I was led to believe that the man was a malingerer.

Dr. MacDonald has incidentally touched upon the part played by the emotions. It is to illustrate this point, that the case is related. At the time mentioned I had an associate, now Surgeon Kidder, of the Navy, who was quite happy in preparing all sorts of expedients to test malingerers with, and it was determined that we would test the emotional nature of this man, on the first opportunity. It was directed that the man should be constantly under guard, and when a fit occurred, the officers should be imme-

diately notified. I happened to be passing the guard-house one day, and as I passed the door the man gave a scream and fell in a fit. We immediately arranged a bucket of water and a tin basin, and I remarked to my assistant that I had a remedy which I thought would kill or cure, and we would soon decide which. I snapped a lancet over the jugular and let the water trickle into the basin, remarking, frequently, upon the large quantity of blood the man was losing. He rallied, rapidly, from the fit, and looked quite astonished when he saw no blood. It was his last effort, there, in feigning in that direction. He then acknowledged to us that he had been in various field hospitals at the front, had been examined, very closely, by a number of surgeons, and all had given him up as an epileptic. We were anxious to learn how he made such a great quantity of froth come from his mouth. We found that he had, in his mouth, a piece of soap, and by working his tongue against it he could get a very respectable amount of froth out. He acknowledged that he had watched genuine epileptics, and had observed those symptoms which are considered characteristic. He had convulsions, I remember, only on one side of the body, and in many other ways, simulated, very completely, an epileptic attack. The reasons why we believed him to be a malingerer, were briefly these: The paper that came with him to the institution, stated that he had been an epileptic for twenty years; but it seemed that his visage was altogether too sharp—his eyes too bright and his face too clear for an epileptic of such long standing, and who had fits as severely and often as this man was represented to have had them. Thus, I was led to assume, as did Dr. MacDonald, that he was a malingerer, and the sequel proved that my surmises were correct.

Dr. C. F. MACDONALD. I agree with Dr. Bauduy, as to the diagnostic value of a relaxed condition of the sphincters, and if I failed to find it in a doubtful case, I am inclined to think I would attach a little more significance to the fact, negatively, than would my friend, Dr. Clark, judging from his remarks upon that point.

As regards the importance of pallor as a diagnostic sign, we all know how difficult it is, in the majority of cases, to determine its presence or absence. The period and very transient nature of its occurrence are such that physicians are rarely able to see cases prior to and during the stage of paleness. Besides, as stated in the report of the case, some excellent authorities maintain that pallor is not a constant symptom in epilepsy. In presenting the case of Clegg to the notice of the Association, no claim of superi-

ority in diagnostic skill, or in the power of detection, is made, the object being simply to place on record what seemed to me to be a rare and remarkable instance of simulation of disease. Remembering the frequency of spurious cases at the criminal asylum, and how strong the inducements are, among convicts undergoing penal servitude, to feign illness in order to avoid the discipline and discomforts of prison life, it is easy to understand why the medical officers of such an institution naturally acquire a tendency to regard with suspicion, cases coming from prison, until the existence of real disease is fully established. Then, too, the opportunities there for observing such cases were probably better than those had by physicians who saw Clegg in the streets and elsewhere outside of institutions.

The opinion, in this case, was not based upon the presence or absence of any single condition or manifestation, but upon the case in its entirety. His history and legal status suggested points of inquiry and suspicion; while the paroxysms were marked by the absence of several conditions which are common, if not constant, in real epilepsy, and also the presence of certain non-epileptic manifestations, all of which, together, are inconsistent with the disease.

As to whether it is easy or difficult to detect feigned epilepsy, depends, I should say, in each instance, upon the knowledge and skill of the impostor, as well as upon that of the observer.

Dr. CURWEN. I have nothing, specially, to say on this particular case. I have been requested to give some account of a case which attracted some notoriety in Pennsylvania, within the last two years, and which, for some time, was under my care. The man had attempted to poison the whole family, and actually did poison his father, mother and a man living in the house, and was arrested and placed in prison. There he had a constant succession of epileptic attacks of a very severe character, as was reported. The prison physicians gave him a number of quite severe trials to test whether they were feigned or not. They decided it was true epilepsy. The case came up in court, and opinions were divided, among medical men, but the jury finally agreed on a verdict of murder in the first degree, and he was sentenced. Then the attacks came on worse than they had been before, until the counsel made application to the Court for a commission to examine into his condition. That commission consisted of a lawyer and two eminent medical men, and they examined the case very carefully, and one of them declared he had never seen a more con-

firmed attack. The commission decided that his mind was affected in consequence of the epilepsy, and on their report, the Court ordered him to be sent to the hospital at Harrisburg. Within an hour after his admission he had one of his attacks, and the attendant, who was familiar with epileptic seizures, said the attack was not like the attacks he had seen other patients have.

A few days afterwards, on going through the ward, I spoke to the man, and had gone a few feet further, when I heard a peculiar noise. The man had carefully rolled himself off the bench, and this peculiar noise was the knocking of his feet on the floor. By the time I reached him the attack was over. These attacks continued to diminish in frequency and force, for some considerable time. I was familiar with the history of the man, from having heard all the testimony, in court. I placed him under the usual treatment for epilepsy, and the attacks gradually diminished, month after month, until December, 1878. I think that was the last attack recognized by anybody in the Institution. From the 14th day of December, 1878, to April, 1880, he was never seen to have anything like an attack, and during all that time he had been comparatively quiet and pleasant. Part of the time he had been occupied in various ways. He was very ingenious in the handling of tools, and made a great many curious things, of wood. The impression of many minds is, that it was a case of feigned epilepsy. I will not give my own impression, at this time; it has yet to be given.

A MEMBER. How long did the patient remain under treatment for the epileptic seizures?

Dr. CURWEN. He was under treatment for the epilepsy about one year, and the treatment stopped a short time after the cessation of the epileptic attacks.

Dr. NICHOLS. I have never treated epileptics under circumstances which afforded them a motive for feigning the disease, and I have never seen such a case. If such cases occur in any patient under my care, I have certainly been deceived about it. I hardly think it can have occurred. I have been trying to recall whether in my reading, I had ever read of a case of feigned fits on the part of epileptics, and was therefore very much interested in the fact that two competent observers here have stated, one of them that he had one epileptic and the other several to feign epilepsy. I hope that these facts will be distinctly recorded in the minutes of our proceedings for they are to me new and interesting. I have had insane persons feign other manifestations of insanity, and had

during and subsequent to the war, particularly some very interesting cases of malingery who had deceived army surgeons; for example a man who had feigned deafness, dumbness, and blindness, thought to have proceeded from the concussion of the bones from the explosion of a shell near his head. He deceived me for some time. Finally, it turned out to be manifestly and entirely feigned. The association will expect to hear from the President before the discussion closes, I think.

Dr. WALKER, (President). I thought the peculiar province of the President was to give the casting vote, *always!*

I have never seen any feigned epilepsy in a hospital for the insane. I have had several cases. I recall three now of feigned epilepsy in the House of Correction, of which I am physician in the county of Suffolk. One of the cases was a woman. She had a fit every day. I accepted it as a case of epilepsy, because she had been at Deer Island, and constantly in the hospital there, or at the Tewksbury almshouse, and always placed on the sick list there; or kept among the invalids, and therefore, I assumed it to be a case of epilepsy and not feigned.

The regularity of the fits became a matter of interest, from the fact that they occurred every day, about an hour or an hour and a half before the regular medical visit. Whenever I visited her, I found the countenance swollen, and somewhat livid, precisely like that of the epileptic after a recent fit, and the pillow always covered with blood. The nurse's account of it was, that the fit was very severe indeed, and as I have said, had occurred about an hour, or an hour and a half, prior to the visit. The master of the institution had complained to me of the appearance of things in the hospital. He said that the managers had come around and found the bed covered with blood, and the place looking like a pen after the slaughtering of pigs. I told him that the matron was to blame, that I could not prevent the attack. The next day, looking at her, I said, "I wish you would put off having your fit, until I get here, to-morrow morning." She looked at me out of the corner of her eye, with more venom than I had been accustomed to see in that class of patients, and it instantly occurred to me that she was a malingerer. I said, "two can play at that game, and you will lose. Give this practice up, to-day." She did not give it up for two weeks. I had no means of coercing her, except by giving her gruel, and I did so, thinning and salting it, more and more, every day. At length, one morning, I saw she was not disposed to yield, and I told her that she would be dis-

charged, and consigned to the keeper's tender care, and the Lord have mercy on her. The morning following, the matron told me that she had said she would give up. She had sworn never to work in a public institution. She told where she had studied fits, and having seen them in the hospital, she had learned to feign them, with the accompaniments. She promised to go to work, if I would discharge her from the hospital, and put her on house diet. I did so, and went away, forgetting to ask her where the blood came from. She had pretended that it came from the stomach, and was vicarious and all that sort of thing. Afterwards, I asked where the blood came from. She said "it was from the stomach, and was vicarious." I said, "you may go back to your room and gruel, and take it another three weeks, until I get the truth." She then showed me her finger nail that was sharpened to a point. I had her go to bed, and she put her finger in her mouth, and carried it around her gums, and immediately poured out the blood, as she had been doing weeks and months before. She was immediately returned to the work-shop, never had a fit there, and never had one at Deer Island. Whether she did at the other place, I do not know. She knew the report would go to Deer Island, and she could not play the game, successfully, there again.

The other case was that of a soldier who had his fits in the shop always. He had been frequently remanded to the hospital, and everything would be over before the physician could get there. One day they sent for me and I went over very rapidly. They were taking him from the shop to the hospital, and the hospital officer not being there, they laid him down on the side-walk. As I was approaching him he had a convulsion both sides violently convulsed, one hand knocking against the pavement. I put my foot on it to keep it still. He instantly transferred the rapping over to the left arm and hand, while the right lay placidly on the walk; of course that told the story in his case. He went into the hospital and was kept for two or three weeks on the thin and salted gruel. At the end of that time he gave it up and went to his work.

I have never seen a case of feigned epilepsy in an insane hospital, but in prisons, where they might get better diet and more comfortable quarters, they feign it to escape from the shops. I have not been accustomed to regard pallor as a constant attendant upon epilepsy, at all, and do not regard it as one of the distinct signs of that disease. It is certainly protean in its forms and hard to deal with.

The paper was then laid on the table.

The **PRESIDENT**. I am happy to say that Dr. Ray will favor the Association, this afternoon, by giving us a paper.

Dr. **RAY**. Mr. President and gentlemen. I am obliged to crave your indulgence. I have prepared nothing for this meeting, but finding there is a hitch in this matter of papers, and lest it might be considered that we have done less than we ought, and given more time to recreation than we have to actual improvement, I have consented to read something germane to the general subject of cerebral disease.

Dr. Ray then read a paper on the "Increase of Mental Disorders."

On the conclusion of the reading of the paper, on motion, the Association adjourned to 10 A. M., Thursday.

After adjournment the members witnessed the calisthenic exercises, and after some time spent in social entertainment returned to the hotel.

MAY 27, 1880.

Miss Dix was present and introduced to the members.

The Association was called to order at 10.30 A. M., by the President.

The Secretary read invitations from the President of the Board of Trustees of the State Hospital for the Insane, at Norristown, to visit that Hospital; from the Librarian of the Library Company, of Philadelphia, to visit the buildings of that company, and from the Trustees of the Women's Medical College, which were referred to the Committee on Business. A communication was also received from the Committee of Arrangements of the American Medical Association, inviting the members to attend the meetings of the Association, in New York, and also to attend the reception at the Academy of Music, which were, on motion, accepted.

The first business in order being the discussion of the paper read by Dr. Ray, on motion, it was, at the request of Dr. Ray, laid on the table.

Dr. John B. Chapin read a paper on "Experts and Expert Testimony."

Dr. KEMPSTER. I do not know that I have anything specially to offer, excepting to confirm, so far as my limited experience goes, some of the statements made in the paper. Experts are sometimes required to give testimony before the evidence is all in upon a hypothetical question, made up, not so much in accordance with the facts elicited at the time as upon the information of the attorney or advocates by whom the expert may happen to be called. In the State of Wisconsin there was a remarkable case bearing upon this particular point, a case that I called the attention of this Association to some years ago. It was one in which an insane woman shot a physician of the City of Milwaukee, while she was under the influence of delusions. She was put upon trial, and very strenuous efforts were made to convict the woman. It was apparent, not only to the court and jury, but to the community, that certain parties who ought not to have exerted influence in any direction, were exerting a very decided influence against the woman. The case proceeded in the usual way, experts were called by both sides, and the jury brought in a verdict of murder in the first degree, and she was remanded awaiting sentence. The judge who had ruled in the case did not seem to approve of the unusual manner in which she had been convicted, and, while the woman was awaiting sentence, directed two physicians, one of whom had been called as an expert, in the case, to examine the woman while she was in jail, and inform him of her condition; this within a few days after the finding of the jury who convicted her of murder. The expert, together with the other physician, visited the woman in jail, examined her and it was apparent to both, as it would have been to any one with any powers of observation, that the woman was insane, and they accordingly reported to the court their opinion that she was insane at that time. The judge then, in accordance with the law in our State, made out a commitment for her, and sent her to one of the hospitals for the insane, and she is still confined there, but in this rather anomalous condition, that she has been found guilty of murder, by jury, a committee is appointed to

determine her sanity or insanity, after the trial and finding of the jury that she was not insane at the time of the homicide, notwithstanding all that, and after she is found guilty and awaiting sentence, she is sent to an insane asylum, and is there detained according to the order of the court before whom she was tried, and is unquestionably insane. It seems to me that one way out of all this difficulty would be for the court to call the experts in any department of science, that they should be wholly independent of counsel on either side, and that they should give opinions then upon the hypothetical cases, under the direction of the court, because it is impossible to give an opinion on the case, taking the finding out of the hands of the jury. As it stands, experts sometimes are required to give a categorical answer to a question made up by a sharp legal practitioner, who strains, to say the least, every fact in his case to make it appear to the expert, as it appears to him, to be all one way, very carefully excluding any facts which may bear upon the opposite side.

Again, when the case is made up by the counsel on the opposite side, he, with the same legal acumen, strains the case as he sees it, and the result attained is, that two experts thinking precisely alike upon a given state of facts, but called by opposing counsel, are made to appear entirely hostile to each other on the stand.

I do not know any way out of the dilemma, unless the courts, and not the counsel, see fit to call the experts. One State of the Union has taken hold of the matter, and it seems to me in such a way as will lead out of the difficulty. I allude to New Hampshire. Judge Doe, one of the judges of the Supreme Court, has expressed himself very clearly, and has handled the subject in a masterly manner, that judges must stop invading the domain of medicine while they are upon the bench, or else they must be made to come off the bench and take their place on the stand as other witnesses do, when they desire to appear as experts. The learned judge says: "The legal profession, in profound ignorance of mental disease, have assailed the superintendents of asylums who knew all that was known on the subject, and to whom the world owes an incalculable debt, as visionary theorists and sentimental philosophers attempting to overturn settled principles of law, whereas, in fact, the legal profession were invading the province of medicine, and attempting to install old, exploded medical theories in the place of facts established in the progress of scientific knowledge. The invading party will escape from a false position when it withdraws into its own territory, and the administration of justice will

avoid discredit when the controversy is thus brought to an end." Again he says: "It is the common practice for experts, under the oath of a witness, to inform the jury, in substance, that knowledge is not the test, and for the judge, not under the oath of a witness, to inform the jury that knowledge is the test, and the situation is still more impressive when the judge is forced, by an impulse of humanity, as he often is, to substantially advise the jury to acquit the accused on the testimony of the experts, in violation of the tests asserted by himself. The predicament is one which can not be prolonged after it is realized. If the tests of insanity are matters of law, the practice of allowing experts to testify what they are, should be discontinued; if they are matters of fact, the judge should no longer testify without being sworn as a witness, and showing himself qualified to testify as an expert." I think this opinion will receive the endorsement of all real experts, in any department of scientific investigation.

Dr. BAUDUY. I have very little to say in reference to the paper of Dr. Chapin, because it is a paper which admits of no criticisms. The points taken are just and correct, and well founded. I have some very decided opinions upon this matter of expert testimony, and I am glad, therefore, that the Doctor has brought the matter up for the consideration of the Association. For sixteen or seventeen years, I have been constantly appearing upon the witness stands of St. Louis, and during that time I have had an opportunity of examining the weight of expert testimony; and there has been a rapid and progressive deterioration in this respect, until expert testimony, in Missouri, has actually reached that state in which it can be pronounced a farce and a disgrace to physicians. I consider, that in many instances, the men who seek to get their names in the papers, who have had no experience in insanity, and very little practical knowledge upon the subject, bring disgrace upon the specialty and degradation upon the profession, by seeking to advertise themselves upon these trials.

In a recent trial in Missouri, a witness stated that he was an expert in insanity, when he was an eclectic physician whose experience was limited to outside clinics in which he was treating a few patients for nervous or mental diseases. In a recent case, a man who was also an irregular practitioner, presented himself as an expert in insanity, who, on the trial, admitted he had never seen any cases of insanity, except such cases as *occasionally* presented themselves to the regular practitioner, in the general practice of medicine; a man whose experience in insanity was limited

to four or five cases, and who did not know the difference between hysterical and many other forms of mental disease. A man, being also a regular practitioner, was called, and admitted that his practical experience was limited, principally, to hysterical insanity; and yet he was called upon to decide upon some of the most important psychological issues which presented themselves during that trial, though unable to give satisfactory definitions of delusion and hallucination. Such are some of the so-called experts who are called upon the stand there to testify. Then independently of such indignities, as I look upon them, is presented the professional monstrosity of placing such men upon the stand, which undoubtedly has a tendency to lower the specialty. The expert testimony of St. Louis is too often ridiculed by newspaper editors, and ridiculed by the public; and it is frequently contended that any average juryman is a better judge of such cases than many so-called experts. It is hence lamentable for an expert, with any self-respect, to be placed on the witness stand in such company. I care not how high the individual notions of morality may be, it is always a temptation for medical men to be placed on the witness stand, and offer opinions for which fees are tendered on either side. I think it is very difficult to give impartial testimony under such influences. We are all human, and I think there is a tendency, imperceptible though it may be, for money to sway a man's opinion *pro* or *con*, although he may be honest in his convictions and quite unconscious of how his opinions have been moulded by such influences, a man is liable to see points he would not see if not tendered a fee. Therefore, I think mercenary influence is one of the great evils now associated with expert testimony, that ought to be taken away. I think a more unbiassed position would entitle him to more respect from others, and would give him more self-respect, and thus the expert, and the public with him, would feel that his opinion was not and could not be subjected to the influence of mercenary consideration. Hence, I think it would be well to adopt, as the sense of this Association, a rule or regulation, that for the giving of such an opinion or opinions, the expert should absolutely refuse to take a fee, under any circumstances. Better for the expert to go upon the stand with the full consciousness that he will not allow himself to be governed by any mercenary influence, and stand above suspicion, and have the outside public believe that he is never found in such a position as can enable him to be influenced by mercenary consideration.

Then again, the ignorance and presumption of many so-called experts cause indignities to be thrown upon the profession by their lamentable display of ignorance and incompetency before the public. Much degradation is cast upon the profession by the monetary influences that, as I have said before, but too frequently bear on these relations. It seems to me that expert testimony of reliable and valuable men, and men of experience, could very frequently be procured, and have a desirable effect and happy influence, if always brought out under proper circumstances. I wish such a state of affairs could be brought about in St. Louis. A man who recently committed a homicide there, plead insanity on the trial. In consequence of the clashing of experts, and the miserable, wretched manner in which the case was protracted through legal technicalities, it was tried over and over again, during the course of years, at an enormous expense to the State, and is not yet finally disposed of. One case that I have in my mind, was tried at four different times, costing the State of Missouri eight thousand dollars, the defense being insanity. This was due to the pettifogging of the lawyers and the clashing of experts, causing the case to be tried over and over again, the State of Missouri all the time undoubtedly suffering, unjustly, the burthen of enormous and useless expense, whilst the defendant was undoubtedly sane, and responsible for the crime which he committed.

I also call to mind another case which was tried some four or five years ago, during the time Judge Prim was on the bench. It was that of a young man arraigned for homicide, and insanity was the ground of defense. The case was apparently one which had many strong points in it, and Judge Prim appointed five physicians, who were put under oath and empowered to examine witnesses—the case not going before a jury at all. The Commission came to the conclusion, after examining the witnesses and a searching analysis of the evidence, that the defendant was insane. He was sent to the State Asylum at Fulton, five years ago, and now remains there, a case of hopeless insanity. So the investigation in that case was very happy in its results, both in a humane point of view, and also in the saving of expense to the State. The criticisms of the public press upon the manner in which the trial was conducted and the gratification expressed, were creditable to the profession. Nothing was left open to suspicion, and these five experts were the cause of saving an enormous amount of money and time to the State of Missouri.

It strikes me this is the only practical way to arrive at proper conclusions in matters of that kind, namely, the appointment of a sworn medical Commission. When insanity is alleged, it would be well to have four or five prudent, experienced men of the profession appointed, and above all suspicion, and who, in scientific attainments, are well versed, and they should be empowered to investigate and decide whether or not a given plea of insanity is to be entertained at all, and whether it presents the necessarily essential features of insanity. If the case is proven to be one of insanity, and the plea substantial, there should be no jury trial, as a matter of course, and the matter should be adjudicated final. The case that I referred to, as I have said, was very successful in its results. I most heartily agree with the paper of Dr. Chapin, and I can not too fully endorse what has been said on the tendency towards distrust of expert testimony, and the throwing of odium upon the medical profession, because medical men, the least fitted, intrude themselves as experts in this specialty. Much abuse, opprobrium and disgrace is thus thrown upon the profession. This body can not do too much to cause the correction of these evils. By its influence and high standing, it can, through resolutions declarative of its belief on the subject, do more real permanent good than any other body.

Dr. A. E. MACDONALD. I will briefly call the attention of the Association to a case that came under my notice a few weeks ago, as illustrating, very markedly, two of the points to which the Doctor has referred—the absurdity of the claims of some experts to appear in that capacity and the facility with which other experts change their opinions from time to time. The case was that of a young merchant of New York, who was regularly adjudged to be insane, and then again brought into court under the interposition of a writ of *habeas corpus*. The young man had been in three different asylums prior to this trial, and the proceedings necessary to appoint a committee of his person and estate had been commenced but not completed. He had a very strong hereditary taint, as is shown by the fact that one of his brothers died in an asylum, that another is now in Bloomingdale, and that a third had been in an asylum, and was discharged as partially recovered. Just prior to his arrest and examination, he had contracted a marriage which was very objectionable to his family, (with a woman of ill-repute, in fact). They procured his arrest and examination by two regular examiners in lunacy, who adjudged him to be insane, and he was duly committed by one of

the judges of the Supreme Court. The writ was interposed, and the case came up for trial by jury. I considered him insane, and so testified. When I visited him, he had all the physical symptoms which we are accustomed to see in paresis with the most exaggerated delusions. He considered himself, among other things, the greatest singer and the greatest pedestrian in the world, and was going to win the champion belt, which he would be able to do by walking without resting. He told me that he could take one full breath, and by bandaging his chest and limbs, retain it for a week, and so could walk a week without resting. I satisfied myself, without any doubt, that he was a victim of general paresis, and so testified. Similar testimony was given by three or four others; while on the other side two physicians appeared, who claimed that he was not insane. They were both private practitioners, and the authority of one may be judged from the fact that he testified that there was no possibility of such a thing as a remission in general paresis; that that was entirely inconsistent with the disease; that it must be progressive and go on, without interruption, from bad to worse. The case was soon decided. The jury, remaining out only some five minutes, adjudged the man to be sane, and he was discharged. I consider the case was lost by the expert testimony. I think it turned upon that. In the first place, these gentlemen appeared upon the other side and testified that he was sane, and, as is usual, testified with the positiveness that comes from want of knowledge, for, as a rule, I think the man who really has the opportunity of studying the subject and of forming opinions, is much less positive in his assertion than is the man whose opportunities have been limited. And the end was contributed to by two gentlemen who testified upon the same side as myself, and whose testimony seems to me, as I say, to fairly illustrate two of the points of Dr. Chapin's paper. One of them being asked if the existence of delusion necessarily indicated that of insanity, answered that it did, whereupon he was promptly confronted with his evidence in a former case, when he had testified exactly to the contrary. The other (who, by the way, after being an unsuccessful applicant for appointments in several different asylums, quite lost his confidence in the present management of such institutions, and has been somewhat obtrusive in the citation and invention of supposed abuses therein, and in the indication of a modest willingness to have the duty of their correction thrown upon him) was shown some of the handwriting of the patient and asked if it offered any evidence of insanity. He

replied that it did, and after giving the changes correctly enough, added that similar evidence was afforded by certain mistakes in spelling. Being asked to name them, he said: "Why, he spells 'amount' with only one m!" [Laughter.]

Dr. EVERTS. Are they members of the Neurological Society?

Dr. MACDONALD. Yes, sir; one of them is a former President and the other a former Vice-President of that august body.

Dr. MILLER. I have nothing to say, except as to the sentiments of the paper, with which I fully agree. That kind of testimony we have in our portion of the State to such an extent that the better class of physicians seldom appear upon the stand. It is left to the younger men who desire to have a name as experts. The testimony and knowledge of the best and most experienced physicians being treated in such a manner, they think it is more to their credit not to appear upon the stand, than to have it altered to suit the views of the parties.

Dr. BOUGHTON. I was struck particularly with Dr. Bauduy's remarks as to the ignorance of so-called experts, and the promptness with which men who are utterly unfit for the position, and utterly disentitled to the name of expert, come up, and how much evil expert testimony has suffered in that regard.

The suggestion that the court should be allowed to call experts, is a very valuable one, from the fact that it will do away with all that; but in addition to that, there should be a well understood definition as to what an expert is, a definite fixed standard, that a certain amount of experience with the insane, and in the treatment of insanity, should be required before a man should be called an expert, and be deemed such. I am not aware that there is in any of our States, or any of our courts, anything that professes a definition of what an expert on the subject of insanity should be, or as to what kind of experience, or how much experience, entitles him to the name of expert. It seems that generally any man who is a doctor, and has had any practice at all, may claim the title of an expert, and make good his title without any difficulty at all before our courts or our judges. I think one great difficulty that lies in the way of expert testimony, is in the lack of knowledge of the judge himself as to what insanity is, by proper observation, and the lack of experience that our judges have in the observation of insane people. I have been called on at different times to give testimony in different courts, and in conversation with judges afterwards, have found men, of fifty or sixty years of age, who had never seen an insane person in their lives, with an opportunity of observation.

I find many judges have an idea that a person is not insane except he be a raving maniac and requiring manacles, etc., to control him; that any person who can sit quietly in a chair and witness his own trial, and perhaps give testimony in regard to himself, makes it impossible for the court to believe that he is insane, unless he gives evidence in the court-room of his insanity. I am very sure that this popular idea of our judges, that insane persons must give evidence of their insanity in this way, is a great obstacle in the way of proving insanity in obscure cases, or even ordinary cases. I remember a year ago last winter, of a lady who is known to all this Association, either directly or indirectly, Mrs. Packard, who has made a great deal of trouble. She came to the capital of our State as a lady interested in behalf of our reformatory institutions, and anxious to amend the laws of the State so as to provide properly for the insane. Previously to her introduction to our law-makers, she had had interviews with nearly all the judges, including the judges of the Supreme Court, that she could reach, and I am informed (and I think credibly informed) that every one of these judges ventured the statement, that if this woman was insane, they did not know any woman was sane. She had with her, her books which, perhaps, many of you have seen. In one of her published books she makes the declaration that she is in communication with George Washington at present, and that he is in partnership with her for the reformation of the institutions of the country; that she is under his instructions and directions. She cites other persons, who have been dead for years and centuries, whom she is in league with in the reformation of the institutions, and so on. The woman was sharp enough to refrain from producing these until after she had made an effort and failed, and then these were produced. As I was saying, she gave the impression, and elicited expressions of confidence on the part of all the judges, that she was sound and right, and she further elicited more sympathy from them in regard to the proposed reforms than she did with any other class of people. I do not know how the difficulty is to be gotten over, of having the judges of the courts obtain a wider experience in regard to insanity.

I have been frequently confronted with this question, whether a person who is insane could be subject to ordinary rules of government and management, whether they could be made to understand what the laws of their country were, and what obedience they ought to render to those laws, and have had the statement received with a great deal of surprise, that in all the institutions for

the insane, the inmates are governed precisely as the citizens of any State are governed; that we have certain rules and regulations, and withdraw certain privileges when certain rules are disobeyed or broken; that a greater proportion are subject to those rules, and that the same rewards and penalties that govern the sane people govern the insane people. Such statements are taken with a grain of allowance, or looked upon as incredible. They are loth to believe that the insane can be held and controlled by rules and regulations, and that the rules and regulations can be enforced by penalties, and good behavior encouraged by reward. It seems to me that the great want in regard to experts is a definition as to what an expert is. The subject of who shall decide, and who is entitled to be called an expert, has been suggested by the paper read, that they should be called by one of the judges. I think in some way or other, I do not know how, that judges themselves should become better informed, and know more of the character of insane people, that truth on the subject of insanity may not be received with the same incredulity it now is.

Dr. EVERTS. Dr. Chapin, in his paper, seems to have presented a nut full of meat, and Dr. Bauduy has cracked that nut and revealed the contents. The whole difficulty seems to be a matter of ignorance—ignorance on the part of supposed or alleged experts, and ignorance on the part of jurors and judges and the populace generally. It is true, at least I believe it to be true, that no women and but few men have yet attained the intellectual development in which they are governed by a higher faculty than that of feeling. Experts are brought into disrepute because they go contrary to the feeling of the people, the feeling of the jury. No matter how valuable an expert's testimony may be, the people, and especially juries, are incompetent to arrange and apply it. The law presumes that a medical man is an expert in matters of sanity. It is a wonderful presumption. An ordinary medical man is no better qualified as an expert, than any other ordinary or equally intelligent observer. Neither is it to be presumed, as we have been instructed, that belonging to a neurological society constitutes a valuable expert in insanity. As a matter of fact, qualification or proficiency as an expert, is not to be presumed. A man may walk the wards of an insane hospital for a lifetime, may be competent to observe an insane man, under such circumstances, and properly administer to his wants, and yet be utterly incompetent to analyze such wonderfully constructed hypothetical questions as are sometimes presented by able and ingenious attorneys,

and reconstruct them in such a way as to give an intelligent and comprehensible answer in court. It requires something more than mere observation or practical knowledge to be an expert in insanity, a good one I mean, and I think it is the rarest thing that has been presented in this age—a competent, thorough, trustworthy and independent expert witness.

The matter of compensation, the love of money as a corrupting influence; that is next to ignorance, but it is a matter within our own control. We can refuse to be “hired witnesses.” That we have the right to do, and I think it would be taking high ground, if every expert witness, when called upon by attorneys, would say, “I will appear in your case if you wish me to, without pay and without any previously expressed opinion. Let me go there freely, to testify as I choose, according to my convictions, without your knowledge of what my testimony may be. If you are willing to take me on such terms, I will be a witness; otherwise, not.”

Dr. STREEVES. I have nothing special to say upon the subject, more than it is in a very unsatisfactory state. Neither the medical nor the legal profession is satisfied with the present mode of obtaining expert medical testimony, and certainly the ends of justice are not well secured. I am not sure that there is any remedy, but I think that the suggestion made by Dr. Kempster, a good one—that the officiating judge select the expert or experts in all cases where such evidence is required. To my mind, it is highly proper that this body should deal with the subject, and if they can mend matters it will be well; and that some specific action be taken, I would recommend that a committee be appointed to consider the question, and report at our next annual meeting. In the mean time, all would have time to digest and define their opinions.

In this connection, though apart from the subject under discussion, and yet suggested by it, I desire to say that one of the difficulties encountered by the younger members of the Association in attending these annual meetings, is that they are in total ignorance of what subject or papers are to be presented; this ought to be obviated, if practicable, and I do not see why it can not.

Dr. DIMON. I am too young a member to take up the time of the Association with discussion by me of this subject, but I have had some practical acquaintance with it in our State. I was chairman of a committee of our State Medical Society, to procure legislation in regard to expert testimony; and having a knowledge of the difficulties of obtaining such legislation, I can furnish some of

the objections to it. The difficulties arise from interfering, by law, with the constitutional right of clients and criminals to have any testimony they desire to make up their cases for a jury. The lawyers all insist on this, adversely, to any law restricting it. Objections are raised in the legislature, to limiting the application of the law to chemists and physicians as experts.

The lower house of our legislature threw out a very moderate law which had passed the senate, and which was confined to simply providing that all cases where the people of the State were a party, chemists and physicians summoned as experts should receive a reasonable compensation for their services, to be determined by the court, and which should be paid by the treasurer of the county in which the case was tried, upon the order of the court. The ground upon which the assembly rejected this law, was that it did not include farmers, horse-dealers, &c., called to determine the value and character of hay, horses, &c. And though the whole subject of regulating the employment of experts in the courts was narrowed down, as an entering wedge, to further and more competent regulation to the simple matter of providing proper compensation in certain cases where no compensation at all existed for such service, yet this failed to become law for the reason I have given.

The judges of our courts are almost unanimously in favor of very radical reform, by law, of the whole status of experts as witnesses. They deem experts to be *amici curiæ*, and think that they should be summoned solely as such, and be real experts, freed from any suspicion of prejudice arising from their being summoned as friends of the parties. But the lawyers are almost equally unanimous in opposition to such legislation.

The special point most frequently brought before the court, as a ground of defense in criminal trials in which expert testimony is summoned, is that of insanity; and, in that connection, there is inflicted upon our profession, especially, great injustice. We are taken from our business and at our own expense, from one end of the State to the other, and made to give up our private property for public use, without compensation. Dr Chapin, in his admirable paper, has ably presented this point, and it is one in which, doubtless, legislation may be obtained to remedy this injustice, and, as I have said, such legislation may prove an entering wedge to further proper regulations in regard to expert testimony.

Dr. GUNDRY. I take it that so long as human beings are imperfect, so long will expert testimony follow the general rule. But

I have risen to side very much with one or two remarks that have fallen. To commence at the beginning, how did expert testimony come to be used? Originally, the judges were expected to know all things. They were first taken from the priests, the centers of all learning; but as the separation between the priests and the people became wider and wider, and men became fond of one science to the exclusion of others, it became necessary that the court should select experts, as *amici curiae*, or friends of the court, to enable them to instruct that very high official in knowledge with which he is not acquainted. Then bear in mind the duty of the expert is to be a friend of the court, and an impartial man. He is to define the difficult questions he is called upon to solve, impartially, and to speak the truth. He is not to go beyond that. The counsel, being officers of the court, are to get out, on the one side, what may be due them, and, on the other side, the counsel are to elicit the truth they are trying to get out by any legal means in their power. The expert, however, is to be the friend of the court, and to give testimony with a sort of judicial fairness. If he adhere to that, of course no harm will result, and we need not inquire, otherwise, as to the qualifications of the man. The impressions that he will make by his testimony, the officers will determine in that given case. He will not be swayed from the truth by the community at large, and will not be swayed by the legal parties on the one side or the other; but he will endeavor to put himself into the judicial position necessary for the answering of the questions.

In regard to the compensation, has a man to give his labor and his time for naught? Has he to pay his expenses and give his time to contribute to the knowledge of the court? If there be dishonest men, it does not prove that honest compensation misleads a man. It being known or asserted that he is paid for his services, it strikes me that his testimony will be received with so much, or so little value, just as may attach to the question of bias. It is proper that their compensation should be so fixed as to be above the imputation of bribes, and that it should not depend too much upon the mere suggestion of one side or the other, but it should be determined by a party having no interest in the question; and the suggestion that the judge should decide the amount, is a very valuable one.

The suggestion made by the essayist, that the judge should originally appoint the expert, is also a very valuable one, or it may be, as in certain other cases, an agreement after the submission of

certain names, by consent of both parties. But it strikes me there is always an expressed understanding that guarantees to every man, or will always suggest to the attorney the right to change his defense at any moment, and not to give notice of the line he intends to adopt, or to suggest the names or the character of the witnesses he is about to call.

I said the man is to be the friend of the court. In some States, you are aware the judges no longer charge the jury. They simply sit to rule on any law point, or rule out any evidence, and simply give to the jury the law, after the testimony is in. The expert there does not enlighten the judge as to the testimony testified to by the other witnesses.

The expert has been defined in some States. In others it is expressly said that a man is an expert on the subject of insanity, provided he has given his reasons for it. In the case of Clark, it was decided by the Supreme Court of Ohio, that any person could give his testimony as an expert, provided he gave his reasons so that the judge and jury might determine upon it, but he must give his reasons to show how the opinion is founded.

I think the reaching of a reform is found in ourselves. It is not a matter attaching to this man or that man, or this society or that society, but to come home to the question whether we can gradually, and with what little influence we have with other men, push forward to the attainment of our just ends. To better each one will do more good than abusing other people, even if they are supposed to be bellicose and ferocious. The courts are crowded with men anxious to give their testimony. We have experts on writing and bridge-building, and every kind has a wretched following, and they are all the time in the market for a sort of reputation for sharpness and envious places before the people. It is human nature. I do not know that we can change it by crying it down, but if we can impress upon the different States the necessity of clearing away a good deal of this rubbish, and by some mode, with the assent of the attorneys and judges, keep down the list of those persons who are urgent to give instruction, we shall do a great deal. I do not know how, unless we boldly adopt the plan, as done in Scotland, in certain cases, of attending to both sides—not the *amicus curiæ*, but the *amicus personæ*—which is to make out the cases, not only for the commonwealth, but for the defense. I am not aware whether he is called as a witness, necessarily, but at any rate he is recognized as an adviser of the leading counsel to the two parties, and that is a very valuable custom.

I am not sure that that would not be a more radical cure than that stated, and in either way it could be a basis for alleviating the evil complained of.

Dr. BUCKE. I have nothing to say upon this subject beyond what has already been better said, except that I would like to state to the Association what has recently been done in Ontario, in the matter now under discussion. In the last few months it has become the law in Ontario, by order of Council, which is just as good as any other law with us, that no medical superintendent shall receive money for any medical services whatever, beyond the salary that he receives from the Crown. Therefore, although medical superintendents are just as eligible as ever they were to be witnesses, it is impossible that they ever can be partisans, for a money consideration. If a medical superintendent, in Ontario, should be subpoenaed, by counsel, for the defense, in a case on trial for a crime committed, he would be in this position, that he would either have to refuse any fee that might be offered, (and if no fee were offered he would probably not say anything about it), or, if a fee were offered and accepted, he would have to hand it in to the bursar of his institution. If, on the other hand, the Crown saw fit to employ one of the medical superintendents, that medical superintendent would receive from the county the ordinary fees given to a professional witness, which amount to four dollars a day and mileage, which would be barely sufficient to pay his expenses, and of course would be no consideration, one way or another. Therefore the medical superintendents, considered as experts with us, must go into the court entirely unprejudiced, so far as any pecuniary considerations are concerned. I have no doubt, myself, that this law, which I consider a most admirable one, will have the effect, in a very few years, of reforming this matter altogether, with us, so that those men who have the best opportunity of forming judgments in matters of insanity, and who undoubtedly are the best authority in these matters, being absolutely free from all improper influences, will be accepted by the courts and people, as thoroughly reliable evidence in these cases, and the difficulties heretofore met with in this class of evidence, will almost entirely disappear. I think it is the best thing, so far as I know, that has been done in this direction yet, and I hope it will be extended.

Dr. EASTMAN. I have but a word to say upon a single point connected with this subject. A few years ago I was called, in Massachusettes, as an expert, in the trial of a man who had committed a homicide while afflicted with delirium tremens. In this

case the expert opinion was elicited, not by the usual form of hypothetical question, but substantially in this manner: "Taking the evidence to be true, what, in your opinion was this man's mental condition at time of homicide, and upon what particular portions of the evidence do you base your opinions?" As the evidence in this case was very full, I was enabled to commence with the first day on which the disease showed itself, and follow on from day to day, pointing out the symptoms as brought out by the witnesses, which were indications of delirium tremens. This method not only gave the expert a better opportunity for forming an opinion, but it gave the jury an insight into the reason which led to the opinion expressed.

Dr. NICHOLS. I will only say, in addition, that I fully agree with the opinions of the paper, and think it a very valuable and a very timely one. In common, I suppose, with all gentlemen who have been particularly liable, on account of being superintendents of institutions for the insane, to be called upon to give testimony, in court, in relation to insanity, I have reflected a good deal upon this matter, and I will state simply what has seemed to me the best course to pursue. The reason for it will be obvious to you. It is difficult, if not impracticable, in most cases, to have a line of defense known, except privately to the counsel, until the parties have been indicted, and the trial commences. It has seemed to me that then, if the plea of insanity is set up, or at any time in the progress of the trial, that the defendant should be remanded to his place of custody, and be subjected to an examination by a standing commission, and that the examination should continue until the commission is prepared to report.

In regard to the question of pay, it seems to me that the law should provide a *per diem*. Perhaps the people would hardly be satisfied to provide an annual salary, because in one year the commission might not be employed at all, and in another year employed to an extent much exceeding the value of the salary. When the case is brought up again for trial, the report of this commission would be considered. Actually, it seems to me less partisan than that of any other testimony, or testimony that could be procured in any other way.

Then I agree with Dr. Gundry, and others, who have expressed similar views, to the effect that neither counsel nor community will deny to the defendant any means of defense now resorted to, and that experts, so-called, will have to be allowed after all; and that it would be impracticable to limit the number or the character of

them, but the payment of them might be and should be determined by the court. I agree that it is very difficult for the witness himself, to separate himself from the influence of a fee; and at the same time I agree with what has been said in the paper, and also with those who have remarked upon it, that nobody has any right to the capital of the expert without paying for it, and the enlightened court would be as fair a judge of the value of that testimony, or of the value of time given, as anybody, and it seems to me it should be left to the court.

Something has been said in relation to the ignorance of judges and jurors in relation to this matter, and that is said to be a great difficulty. The difficulty has seemed to me to be the presumption of the judges, and the habit of the judges, brought down from ancient times, of expressing dicta upon questions that they really know nothing about, and that the law does not really authorize them to express opinions upon. I suppose it has been the experience of every member present, it has been mine in one or two instances, in which the judge has expressed his opinion of my testimony, before it was submitted to the jury, sometimes favorably and sometimes unfavorably. I remember that upon one occasion the counsel and jury were told that it would be better, if the jury desired to be enlightened upon the subject of insanity, to read the work of our distinguished associate, Dr. Ray, than to have my testimony, and although I felt a little snubbed, I think it was the most sensible opinion that the judge pronounced upon that occasion. It seems to me that there is really a great demand for a reform in this particular. As an example of what I complain of, I may refer to the case of Miss Dickey, and the opinion of Judge Brady, two or three years ago, in which he expresses his views upon the treatment of insanity, upon the question of their isolation, their association with the insane, with the effect upon the physicians and others being associated with the insane, which of course were opinions, but really, as they were impossible, as a matter of course, were absurd. They were calculated to prejudice the case in one direction, and really had nothing whatever to do with it. I think, really, one of the great evils of the jurisprudence of the day is the expression of opinions that are entirely extra-judicial on the part of the court.

Dr. BUCKE. I would like very much to ask Dr. Nichols, in case of such a commission as he spoke of being organized, whether the opinion of that commission should be taken as final, or submitted to the judge and jury for revision? Supposing, for instance, they

found the prisoner to be insane, would that end the trial? Or supposing the commission found the prisoner not to be insane, would that finally rule the plea of insanity out of the case?

Dr. NICHOLS. My view is that the opinion of the commission should not be final, that it should be submitted for what it was considered worth, just like any other expert opinion. Under the circumstances, it would be likely to properly influence the result of of the trial more than that of any other expert testimony.

Dr. KEMPSTER. In answer to Dr. Bucke's inquiry, I would state that in Wisconsin the law has been amended since the trial I alluded to when I first spoke. Now when a person is indicted, and the plea of insanity is interposed in behalf of the defendant, the law directs that the trial shall cease, and the question of the sanity or insanity of the individual shall be first determined, and that is to be determined as any other fact, by calling expert witnesses, the jury deciding the cause. If the jury find that the person is sane the trial shall proceed, and the plea of insanity is barred. If the jury find that the person is insane, it becomes the duty of the judge to direct that the person shall be confined in one of the hospitals for insane people, and that upon recovery he shall be returned to the court to be disposed of as the court shall see fit.

Dr. SCHULTZ. The drift of the discussion calls to mind a case that I will relate in a word or two. A man was brought to the hospital, by order of court, to be detained until discharged by process of law. On inquiry it was ascertained that while sitting in the court-room and waiting for his trial on a charge of burglary to proceed, his conduct was very strange. In view of this conduct he was committed to the hospital. A few weeks before a subsequent term of court, the judge being informed that the person was probably not insane, he was returned to prison, tried for his crime and convicted. In this case the judge appeared to think that a residence in a hospital was a good expedient for determining the mental condition of a culprit.

Dr. NICHOLS. It may be interesting to gentlemen who have come into the specialty since the death of the late Judge Edmonds—you may, to be sure, know it already from your reading—that the course pursued in the State of Wisconsin was the one that the judge pursued, as far as he considered himself at liberty to it under the law, and he did substantially pursue that course in many cases. Although the judge was so unfortunate as to have to retire to an institution of insanity himself, I never have

testified before a judge who understood insanity and the jurisprudence of insanity, as well as he.

Dr. RAY. We seem to be all agreed as to one point, that a great deal of the expert testimony taken in our courts is worthless, and, perhaps, worse that worthless. Now, the only practical question that we need trouble ourselves about is, I think, what are you going to do about it? Is there any possible provision of law or custom which will put upon the witness-stand a better class of experts? How are we going to get better experts, men whose opinions and authority will be universally recognized? Let us examine the plans that have been proposed for obtaining this object. One gentleman says, that a judicial commission will reach the difficulty, the executive of the State appointing one or more persons as a standing commission, whose business it shall be to examine these cases and make report. Let us see what the practical result will be. I have given my views on the subject so often, that I am afraid my brethren will consider me like that twelfth jurymen who wondered at the obstinacy of the other eleven who would not agree with him. Of course no single commission could be regarded as equally competent to act as experts in cases of insanity, of wounds, of poisons, and so you must have as many different standing commissions as there are diseases and accidents becoming matters of judicial inquiry. Of course such a provision is utterly impracticable. By others it is proposed that the court should appoint a commission in each particular case as it comes up. To both plans there are objections enough to render them unsatisfactory, if not totally impracticable. In the first place, when a specific duty is placed upon a public officer, it is implied that he is amply qualified for the performance of that duty. Need we ask how our Governors and Judges are thus qualified? Having no personal knowledge of the subject in question, their appointments must be determined by their own fancies, or caprices, or the popular estimates, misleading as they often are. A homœopath will be likely to appoint a homœopath, guided only by his faith in shakings and provings; an advocate of woman doctors will be quite satisfied with one of the sex, and another is captivated by some forthputting hero of the hour. Our New York friends would look with some anxiety, I imagine, for such appointments. Secondly; if the remuneration should be tempting, we well know that pressure would be made upon the appointing power, and thus the choice would be determined very often by politics or court favor or some other unworthy motive. More likely, however, these plans would

fail by reason of inadequate compensation. A genuine expert's estimate of his value would be generally much above what a Governor or Judge would put upon it, and the result would be cheap experts, the very thing we wish to avoid. In the third place, I am unable to see how the written report of a commission can be admitted into a jury trial. It would be inadmissible as evidence simply because it could not be subjected to cross-examination, the great distinguishing feature of our mode of procedure. The practice of reading books to juries, once common enough, was finally stopped for the alleged reason that whatever authority they might have could not be cross-examined.

While admitting that much worthless expert testimony is heard in our courts, I think there is a prevalent mistake respecting expert testimony, which makes the evil greater than it really is. Most people suppose that experts, if honest and competent, must, necessarily, agree; that whatever their experience, they must all have arrived at the same conclusions. Now, there is no reason for such an opinion. In no branch of science or art, is absolute uniformity—not even in mathematics. Once, in a meeting of the American Academy of Science, if I quote the name correctly, I heard Prof. Pierce, the great mathematician of Cambridge, and Prof. Alexander, of Princeton, differing, widely, on some points connected with quaternions. Difference of opinion among experts may be indicative rather of the highest than of any inferior attainment. When we find agreement among any other class of inquirers, we may reasonably expect it among experts; and not till then.

On motion of Dr. Curwen, the paper was laid on the table.

Dr. KEMPSTER. Several gentlemen have expressed a desire that the sense of the Association should be tested in reference to the question that has been discussed. For that purpose, I beg leave to present this resolution:

Resolved, That a committee be appointed, to report, by resolution or otherwise, to the next meeting of this Association, a method which shall express the views of this Association, as to the best manner of procedure in procuring experts on medico-legal questions of insanity, and what qualifications, in our opinion, constitute an expert.

Dr. NICHOLS. I have no doubt that the offerer of this resolution has exactly the purpose that I approve in such a resolution, but I

beg to offer this amendment: "That a committee be appointed, to report, by resolution or otherwise, to the next meeting, a method which shall express the views of the committee, relative to the best manner of procedure in procuring experts."

The resolution, as it reads, implies that we shall indorse the views of the committee, just as expressed in their report. While I do not suppose it is the intention of the mover of the resolution that we shall do that, yet it would seem to be better to put it in this form, and then, the resolution being before the Association, would be subject to its direction, that is, to modify it or indorse it, as presented as its views on the question. If the Association shall not accept my amendment, I shall vote for the resolution as it is, but I would prefer to have it read: "That a committee be appointed to report by resolution, or otherwise, a method which shall express the opinions of the committee as to the best manner of procedure in procuring experts on medico-legal questions of insanity." I think that would be better than submit it as the view of the Association.

Dr. KEMPSTER. I of course have no desire to be punctilious about a matter of that kind, but any resolution or paper that it may see fit to report, becomes the property of the Association, and it may amend or strike out as it sees fit, after it becomes its property. When the report is submitted, the Association can do as it pleases. My idea was that there should be an expression of opinion by this Association, but not until the subject had been discussed, and the views of members obtained. We could then formulate our plan if the Association saw fit.

Dr. NICHOLS. Would the gentleman have any objection to this amendment: "With a view of expressing to the Association in regard to the manner in which this testimony should be taken."

Dr. KEMPSTER. I beg leave to say that I will not object to changing the wording of the resolution, so that it shall embody the views suggested by Dr. Nichols, and that the committee shall report at the next meeting of the society, for the consideration or action of the Association, on the views of the committee, etc.

Dr. GUNDRY. I do not wish to multiply words, but it seems to me that this is a question upon which there can be no practical result, though we may agree to agree for the sake of harmony. It is the discussion of this question that does the most good when everybody may consider himself a committee of one to give his opinions. I can hardly agree that a committee can mould my belief in this direction, and have it correspond with the beliefs of

others on the same subject. Therefore I will have to vote against the resolution.

Dr. KEMPSTER. I stated very distinctly in offering the resolution, that it was for the purpose of testing the sense of the Association, upon a subject which, if I understand the discussion we have had this morning, we all agree upon, but it appears that there are some gentlemen who do not desire to have their opinions go on record. It occurs to me that an expression of opinion, after the subject has been thoroughly discussed by the Association, may as well be put upon record, with reference to the best method of procedure in such cases, as to record our opinions upon the best method of constructing or managing an institution, and I believe there is some little bias, at least we are accused of it, as to the tenacity with which this Association holds on to views on this latter subject. This is an important matter, and it seems to me that we ought not to be backward in recording our views as to the best plan for obtaining the desired end. That this is an attempt to upset the legal methods in force in the different States, is preposterous, it is simply to get at the sense of this Association, as to the best plan of proceeding in cases such as have been discussed this morning. The resolution was not offered for the purpose of taking up the time of this Association, or to introduce an apple of discord, or anything of the kind. This Association adheres strenuously to some of its views, and I think that this subject is as important as that which relates to the construction of institutions, or any other matter upon which the Association has put itself upon record.

Dr. BUCKE. I quite agree with Dr. Kempster in this matter. We are evidently all agreed that the testimony given by experts, at the present time, and the whole question of expert testimony is in an unsatisfactory condition. I gather this from the discussion which has taken place this morning. I do not think we ought to be afraid, as a body, to advise the community as to the best mode of taking a step or two in advance out of that difficulty.

Dr. RAY. I wonder how the idea sprung up that any of us are afraid to express an opinion on this subject. There has been no sentiment of that sort manifested here. My objection arises as to the propriety of this proposed measure, as to the effect which it will have upon the community and ourselves. You are going to bring a report to the next meeting, and the majority may agree to it. I may not be here, and my friend from New York, (Dr. Gray), or my friend from California, (Dr. Shurtleff), may not be here, and

yet it is all upon record, and goes out to the public as the opinion of the Association, that experts should be appointed so and so. Now is that fair to the minority?

Dr. GRAY. I hope the resolution will not pass. I agree entirely with the views expressed by Dr. Ray and Dr. Gundry. Suppose that twenty, or thirty, or fifty of us discuss a certain report, and agree by a majority, there would still be no unanimity, we should not have arrived at any certain expression of the sense of this Association. We might pass resolutions expressing the sense of a majority of the members, but the resolutions could not bind the Association or any member on a matter of this kind. I do hope the resolution will not pass.

Dr. A. E. MACDONALD. I seconded the resolution as offered. I think it would be better for the Association, and add to its dignity, if there was some definite knowledge, beforehand, of the subjects to be discussed. The remarks we have made have been desultory and hap-hazard, and I think we have laid ourselves open to the charges that have been made against us, that we do not spend our time to our profit, and to the best interests of those whom we represent. I think it best that a committee be appointed to report its opinions. I think it will be time enough then to bring up these arguments, if the opinions expressed in the report are such as the Association can not adopt without discussion. I hope the resolution will pass.

By request the resolution was again read, and, on motion, was divided, and the question being put on the first clause, it was, on a division, voted down, (fourteen in favor and twenty-two against), and the resolution was not adopted.

Dr. Gundry then read a paper on "The Insanity of Critical Periods of Life," the discussion of which was postponed for the present.

On motion, the Association adjourned to 8 P. M.

The members spent the afternoon in visiting and inspecting the admirable arrangements of Girard College, under the conduct of President Allen and Vice President Arey, and returned to the hotel in the evening.

A few of the members met at 8 P. M., but on account of the difficulty of obtaining a full meeting, by reason

of the unusual heat, a motion was made and adopted to adjourn to 10 A. M., of Friday, 28th.

MAY 28, 1880.

The Association was called to order at 10 A. M., by the President.

Dr. EVERTS. I am pained to announce to the Association the death of Dr. Chipley, one of the older members of this Association, who died at the Cincinnati Sanitarium, on the 11th of February last, after a long and successful career in the specialty of the care and treatment of the insane. He was well known to all the older and most of the younger members of the Association. I move that a committee be appointed to prepare a memorial of our late associate, and report to the Association at its next session.

The motion was agreed to, and the Chair appointed Dr. Everts such committee.

The President announced the death of Dr. R. F. Baldwin, of Virginia, and on motion, Dr. H. Black, of Virginia, was appointed to prepare a memorial.

Dr. Gundry reported to the Association the death of Dr. O. M. Langdon, Dr. Joseph T. Webb and Dr. L. R. Landfear.

On motion, the President was authorized to appoint a committee to prepare a memorial for each of these deceased members.

The President appointed Dr. Gundry to prepare the memorial of Dr. Langdon and Dr. Landfear; and Dr. Miller to prepare the memorial of Dr. Webb.

The PRESIDENT. The business now in order is the discussion of Dr. Gundry's paper of yesterday.

Dr. EVERTS. Under ordinary circumstances, I should feel it a conscientious duty to criticize and antagonize brother Gundry's paper, but having slept upon it, as the great Webster slept upon Hayne's speech, I find that the propositions are so unobjectionable, and the expression of the paper so admirable, that I am disarmed

and forego that which, as I said before, would have been a conscientious duty.

Dr. CLARK. I agree with most of the opinions advanced in the excellent paper read by Dr. Gundry. I notice one remark made in regard to self-abuse, viz: "It was not the exciting cause of insanity that was attributed by many to it." It is a statement held by a number of specialists; but after examining the matter for a number of years, I have no doubt it is a large factor among the causes of insanity. It is stated in the paper that a large number became addicted to this habit, after insanity has made its invasion. Well, this fact is also true in respect to many so-called causes of insanity. You will find in paresis, for example, that to intemperance, in some form or other, is attributed the exciting cause of the disease. While this is true of many, it is beyond doubt, that excesses of all kinds are exciting factors. Both being true, it is hard to say, in a large majority of such cases, whether insanity be the result or cause. The same is true of such as are reputed insane from domestic troubles, dyspepsia, general ill-health and other causes mentioned. As a rule, it is difficult to positively arrive at primary causes. Therefore I always tabulate with considerable doubt assigned causes, until after a thorough investigation of each case. As you are all aware, the history of cases furnished to asylum officers is very unsatisfactory. Friends furnish the particulars, therefore a great many facts, for domestic reasons, are too often hidden. Cross-examination often elicits important facts which have been left out. I do not, on this account principally, attach much importance to many of the causes tabulated in asylum reports. My experience (with the above reservation) in regard to insanity from intemperance, is somewhat the same as that of Dr. Gundry. A large number of cases have been tabulated in the Toronto Asylum for over twenty years, and as far as stated, nine per cent are said to have become insane from intemperance. As you are aware, well-meaning moral reformers, say seventy-five or eighty per cent of the inmates of asylums, go there because of drunkenness. My experience is, that ten per cent comes nearer the truth. In many of such cases the magazine of hereditary, latent power is present, and all that is wanted to arouse this energy, is some untoward circumstance which is erroneously called the primary cause. I therefore think caution is needed in drawing conclusions from tables compiled on such data.

Dr. KEMPSTER. Perhaps I can add a little to what has already been said on the subject, in reference to the statistical matter that

Dr. Clark referred to. It has been our object to eliminate from statistics all errors possible, and to determine upon cross-examination the facts, and I am yearly more fully assured of the important part that heredity plays in the causation of insanity.

One point in Dr. Gundry's paper I may have misunderstood, if so, he will correct me. I understood him to say that there is very little inter-dependence of disease; that when one branch of a family was liable to consumption, another will not be likely to branch off into another type of disease. My researches have led me take a somewhat different view. I formerly held the same opinion. In our State institution we have a very large proportion of epileptics, and I find by careful examination that there is apparently a very close inter-dependence between phthisis pulmonalis and epilepsy, that very many of our epileptics had phthisical parentage, on either one side or another; and in many instances the disease has been traced through several generations; we find that in certain branches of the family the epileptic or neurotic element predominates, and in another branch of the family the phthisical element predominates; and so far as I have been able to ascertain, the phthisical element was the germ. In several instances the families were able to trace the family diseases, and they could trace a phthisical element through successive generations; then all at once it branches off, and all succeeding members of the family present some form of nervous disease, sometimes epilepsy, or some form of mania. The members will probably recall remarkable cases reported in the annual reports issued from our institution illustrating these facts, and showing the inter-dependence of these forms of disease.

I think, with Drs. Clark and Gundry, that too high an estimate has been placed by some writers upon intemperance as a cause of insanity. Although one point must be borne in mind, that is, that other things are to be attached to intemperance beside the immediate effect of alcohol on the individual; as for instance, the poverty, the distress, the grief, the anxiety, and all those things that follow in the immediate wake of intemperance, all of which play an important part in the increase of insanity; not always, of course, in the individual himself, but it does increase the number of cases of insanity but indirectly by the operation upon his offspring, and the wretchedness induced by the intemperate heads of families. I think the experience of many of us will bear out the statement that insanity in women may very often be attributed to the abuse, privation and so on, which they are often compelled to

undergo at the hands of those who have given way to the intemperate use of stimulants, to such an extent as to be unwilling or unable to provide the proper necessities for their families. We have in the northern part of our State, a number of Swedes and Norwegians, and they take alcoholic stimulants in a very direct manner, that is, they drink alcohol. They go to the druggists or wholesale dealers and purchase their alcohol and dilute it with water. Sometimes they drink their potations by taking clear alcohol, and thus become intoxicated. I am told that the evils resulting from drinking pure alcohol are unlike those produced by drinking whiskey; that those accustomed to using pure alcohol as a stimulant become violently intoxicated, and eventually they are apt to go into a condition of profound dementia, from which they rarely recover, and my observations of the insanity of this class confirm the opinion.

Dr. RAY. I did not hear the essay, but I know what the general doctrine is, and I beg leave to contribute my assent to its truth and correctness, viz., that hereditary tendency has more effect, is a more potential agency in the production of insanity, than all other causes put together. When I went into this branch of the profession, nearly forty years ago, my attention was arrested by the fact that many cases could not be traced to any of the causes of insanity set down in the tables of our hospital reports, which was not what I expected. Thenceforth I gave especial attention to that point, and I have come to the conclusion that what are called causes in our reports are only of a secondary character, that they only constitute, as has already been said here, the match which explodes the explosive material already existing. I do not mean to say, I would not go to the extent, that no case can possibly occur not untainted by an hereditary tendency, but I do say that they are very unfrequent, even those produced by injury or accident are determined in a great degree by hereditary tendency. I suppose the reason why that tendency has not been more considered is a mistake as to what an hereditary tendency really is. When an insane man is found to have sprung from an insane father or mother, one whose insanity has been notorious and most demonstrative, there can be no question about its origin, but the mistake is to suppose that the disease never springs from any other form of nervous affection. We know, in regard to other diseases as well as insanity, that tendencies are created which do clearly manifest themselves only in a coming generation; we go against all analogies when we suppose that nothing can be heredi-

tary except in the very shape in which it first issued. I believe, however, that those who have given much attention to the subject are very ready to admit that nervous diseases in their transmission downwards become changed, and appear in different forms; that chorea in the parent may be insanity in the child, that drunkenness in the parent may be either drunkenness or chorea or insanity in the offspring, or in the offspring's offspring. It may take two or three generations to bring it to a head, but, in my estimation, the hereditary character is none the less certain. It has been the result of my observation, that in more cases than otherwise, the insanity may be traced not to overt insanity in the parent, or any predecessor, but to some nervous affection that would not be called insanity, although it may possibly be called eccentricity running very close upon insanity, and even such an extent of mental obliquity as that may pass over one generation. I knew a family where the person in whom the disorder originated, as I supposed, was merely eccentric, so eccentric, it is true, as to be the town's talk, but there was not a trace of insanity in any of his children, although they numbered seven or eight. One or two of them were a little queer, but in the third generation it came out in several instances. I think the opinion is spreading that heredity does, necessarily, imply transmission only in one and the same form.

Dr. BUTTOLPH. I was not so fortunate as to hear the whole of the paper on the causes of insanity. While I was much interested in the general discussion of causes embraced by the paper, I was specially so in regard to those that relate to the different ages or periods of life. In regard to exciting causes, generally, as understood by friends and stated by them, I would say they are often unimportant, or quite untrue, the only symptoms of derangement being taken for or confounded with the exciting causes of the disease. It may be stated, in this connection, however, that the effect of disturbing causes of the same kind vary much, as applied to different individuals, or even to the same individual in different states of the health, mind and feelings. In most cases of derangement, many circumstances exist, as causes or complications of the disorder; but those that have the effect of disturbing the sleep, and through this, or in other ways, of preventing the nutrition of the subject, may be considered as the most influential in producing a state of insanity.

Dr. WALKER. I have but a single word to say. I agree with Dr. Gundry, on the points that intemperance and masturbation

have been very much over-rated as the active, immediate causes of insanity. I think that his estimate of the effect of masturbation is still excessive. According to his table, it amounted to about five and one-half per cent. Some three or four years ago, in the Supreme Court of Massachusetts, the question was put to me directly, by the Attorney General, what percentage of insanity was actually caused by masturbation? I had never thought of it, up to that time. After a few moments' reflection, I stated: "making due allowance, one per cent will cover all cases of masturbation." It created a good deal of excitement in the court, and some considerable discussion afterwards. After leaving the stand, and passing to the door, a member of this Association, who had unusual means of observation, and was, withal, an acute observer, I found sitting there, but not taking part in the trial. I asked him if I had stated that too low, and his answer was, "no, on the other hand, rather too high." Since then, my attention has, of course, been directed to that point, and I am satisfied that I was very much within bounds. In my own experience, not over one per cent is actually caused by masturbation. A very great number of masturbators are found among the insane; but I believe a vast proportion of them masturbate because they are insane, and are not insane, because they masturbate.

Dr. GUNDRY. I will not detain you very long, and will allude only to one or two things. In the little table, I gave two cases, simply as a starting point, showing what had been collected from every quarter, and not detailing my own opinions about them, for I immediately passed on to show you of how little importance I thought them. The point I wanted to make is something like this: A house is liable to explosion by reason of nitro-glycerine or powder stored therein. Somebody goes along there and drops a spark from a cigar. Who is it that wrecks the house, the man that dropped the spark from the cigar, or the man who stored the nitro-glycerine or the powder in the cellar? There are two things, the first heredity, and the last the development in the man, or the period at which that development takes place. I was going, so to speak, to where the hereditary influences exercise their most potent power, the time when sparks, if accidentally cast, are likely to exercise their power, but which, unless thrown down, may not produce any trouble. The sparks may have been dropped before, and no serious consequences resulted; the shavings may have been ignited and no evil have taken place; but if the powder is there and the match is cast, then the explosion is most likely to

take place. That was the doctrine of my paper, and I tried to resolve out each of the processes of development of the disease as it was introduced, and the characteristics of the disease at that time. I need not repeat anything further on that point.

In regard to what Dr. Kempster said as to the inter-dependence of disease, I am not prepared to gainsay his statements, but I think a good deal more inquiry is justifiable, before arriving at the gentleman's opinion as to neurosis, that the general type of the disease does not always yield neurosis. It may be that phthisis may arise and epilepsy be incurred from it, but I think it will hold true, nevertheless, that phthisis afflicted persons entail the same disease upon their descendants, or lung diseases, particularly; that neuroses entail neurotic diseases upon the offspring. While the epileptic may get his epilepsy, or the insane the germ, from a phthysical ancestry, yet, as a general rule, you will not find the degree so very marked. That there is any inter-dependence at all, I am not prepared to controvert, because I have not the material at hand to look at the matter, but I think it well to look at the rule as it appears to be explained. There is no doubt that epileptics entail upon their progeny, a liability to insanity. There is no question that insane parents do entail upon their posterity, not only the form which they suffer, but almost any other form of neurotic disease, and almost any other form that goes with it.

I did not indorse the statement made in the paper, but was very careful in regard to what Dr. Walker has said, believing, with him, that masturbation is more frequently existent with than the cause of the disease. These rudimentary matters which remain, these rudimentary matters in morals produce almost as much trouble as intemperance, perhaps, in the disease. I think strong men master their passions; with weak men, their passions master them. Much of this epilepsy and other disease developed, have been the seed of practices of rollicking frolicsomeness in youth, which gives rise to trouble during the after life.

Dr. Hurd then read a paper on "Recent Judicial Decisions in Michigan, Relative to Insanity."

Dr. BUTTOLPH. I think the case is one of great interest to the specialty as connected with the affairs of institutions, and I agree, very fully, with the sentiment of the paper as to the substantial justice of the final decision rendered.

Dr. CAMDEN. I think it is a very valuable paper, and illustrates one point, that we should be careful that our papers are right in

receiving patients. I suppose the main difficulty was in not having them regular. In our State, (West Virginia,) after a justice passes upon a case, the resident directors, together with the superintendent, constitute an examining board; and if they concur with the decision of the justice, they receive and register the patient. We follow this out as strictly as we can, and there has been no trouble in the reception of patients.

Dr. RAY. The paper is one in which the doctrine laid down by the court is so sound, so correct, and so much in accordance with what has been taught in this Association, that it hardly admits of any dissent from us, and therefore, is not exactly a subject for discussion. I certainly am prepared to think better of Michigan all the days of my life, but I am afraid that the doctrine there announced in the judicial decision is so far in advance of current opinions, it will be a long time before the world gets up to it. Therefore, I fear we may have to take the doctrines of the old law for a few years longer. Still this shows that the world moves notwithstanding the great obstructions in the way.

On motion of Dr. Curwen, the paper was laid on the table.

On motion of Dr. Kempster, it was

Resolved, That the Committee on Business, be appointed at the close of each meeting to prepare the business, and ascertain the papers to be read, and notify the Secretary at least two months before the meeting, so that the members may be informed of what will be read at the meeting, and that the Secretary in sending the notices of the meeting, shall state what papers will be read, and that the members who prepare papers shall bring them with them, to be ready to read at the call of the Secretary.

On motion, the Association adjourned to 8 P. M.

The Association spent the afternoon in viewing the excellent arrangements of the Friends' Asylum for the Insane, under the conduct of Dr. John C. Hall.

The Association was called to order at 8.30 P. M., by the President.

Dr. Hall introduced to the Association, John C. Allen and Henry Haines, Managers of the Friends' Asylum for the Insane.

The Committee on the Time and Place of Next Meeting made the following report, which was unanimously adopted:

The Committee to whom was referred the question of determining the place and time of the next meeting of the Association, respectfully suggest the City of Toronto, as the place, and the second Tuesday of June, 1881, as the time, for the next annual meeting of the Association.

DANIEL CLARK,
WALTER KEMPSTER,
G. A. SHURTLEFF,
Committee.

The President appointed on the Committee on Business, Drs. Kempster, Clark, Workman, Curwen and Callender.

Dr. Bryce, from the Committee on Resolutions, presented the following report, which was unanimously adopted:

The Thirty-Fourth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, and the sixth held in Philadelphia, the organic birthplace of the Association, being about to close, its members in attendance this year, desire to express, both their exalted sense of the abounding presence in this great city of Brotherly Love, of those institutions and material conditions, which contribute, in a special degree to the general intelligence, social order, health and national happiness of its favored citizens, and their grateful appreciation of the attentions and hospitalities which have been bestowed upon them during this meeting, with generous and unsparing hands.

To their very distinguished and beloved associate and friend, Dr. Thomas S. Kirkbride, and to his able and faithful assistants, Drs. S. Preston Jones and Wm. P. Moon, and their associates, and to the Managers of the Pennsylvania Hospital for the Insane, we again return our hearty acknowledgments for the pleasure and profit we have derived from an inspection of the admirable provisions, both in material arrangements and administration, which this, the oldest organization for the care of the insane, in this western world, continues to present for the comfort and remedial treatment of its afflicted inmates, and for their cordial and abund-

ant attentions to our comfort and refreshment, during the day so agreeably spent at that institution. Though the insane department of the Pennsylvania Hospital is the oldest provision in this country,* by about a quarter of a century, for the humane and remedial treatment of the insane, the earnestly progressive and philanthropic spirit with which, under its present head, it has always been administered, keeps it steady in the rank of the newest and best of American institutions of this class. Revering the good Providence under which Dr. Kirkbride has measureably recovered from a severe and protracted sickness, we trust that his life of usefulness and honor may yet be prolonged through many years.

In this connection we wish to express to Mr. Wm. Biddle, President of the Board of Managers of the Pennsylvania Hospital for the Insane, and Messrs. Samuel Mason, Benjamin H. Shoemaker, S. Wistar Brown, Joseph C. Turnpenny and Henry Haines, members of the Board, our high appreciation of their devotion to the Association of the entire day of our visit to that institution.

To Dr. John C. Hall, and the Managers of the Friends' Asylum for the Insane, situated at Frankford, in this city, we are much indebted for the pleasant afternoon they afforded us the pleasure of spending at that excellent institution. We found it to be steadily advancing in the extent and character of its accommodations, to be in shining cleanliness and order as usual, and to present abundant evidences of the very kind and beneficent care which we believe its patients have never failed to receive in all its history.

We return our thanks to Wm. H. Allen, LL. D., President, and Mr. Henry W. Arey, Vice President, of Girard College, for personally conducting the members of the Association through the buildings and apartments of that unique and admirably managed institution where nearly a thousand of fatherless boys are receiving a liberal business education and a sound moral training, which are shown by the prominence of its graduates in many of the useful walks of life. Two of its graduates are now in the Congress of the United States.

We have again had the great pleasure of the society and counsel of our illustrious and venerable associate, Dr. Isaac Ray, who, though long retired from the active duties of his profession, does not manifest the slightest abatement of his interest in the specialty of mental medicine, which he has so long and so conspicuously illustrated and adorned.

* Organized in 1750.

We are glad to be able to again record the pleasure we have had in the course of this annual meeting, of paying our respectful duty to Miss D. L. Dix, whose labors and name underlie the benevolent work in which so many of us are engaged.

We wish to express our appreciation and thanks for invitations from Hon. John F. Hartranft, President of the Board of Managers, to visit the buildings of the Hospital at Norristown, which are about to be opened for the care of the insane of the south-eastern counties of Pennsylvania; from Dr. J. N. Kerlin, Superintendent, and the Trustees of the Institution for Feeble Minded Children, at Media, Pa.; from the Faculty and Trustees of the Women's Medical College, of Philadelphia, and from the Library Company of Philadelphia, to visit their respective institutions, which we regret that we were unable to accept from lack of time.

We desire to commend the gentlemanly bearing of the reporters for the newspapers of Philadelphia, who have been present during the sessions of the Association this year, and to thank them for the fullness and general accuracy of their reports of our proceedings.

To Messrs. I. E. Kingsley & Co., proprietors of the Continental Hotel, we return our thanks for the courtesies we have received at the hands of themselves, and their clerks, and servants, during the week we have spent in their excellent hostelry, and for the use of a quiet, convenient room in which to hold our sessions.

On motion of Dr. Curwen, it was

Resolved, That this Association now adjourn to meet in Toronto, Ontario, on the second Tuesday of June, 1881.

JOHN CURWEN, *Secretary.*

MARRIAGE AND HEREDITARINESS OF EPILEPTICS.

BY M. G. ECHEVERRIA, M. D.,

Honorary Member of the British Medico-Psychological Association, and of the Medico-Psychological Society of Paris, etc., etc.

Arethæus asserts that several physicians, and among them the famous Asclepiades, observed that venery cures epilepsy developed at the age of puberty. The same opinion was professed by Scribonius Largus, and, with these authors, the corruption of retained semen originated the spasmodic malady in such cases. Alfarius à Cruce, commenting on these primitive ideas, contends that, in similar instances, the change of age effects the cure improperly attributed to venery. His pupil Sinibaldi, declares venery powerless against fits exploding after the age of fifteen, especially in adults, or individuals of an advanced or old age. But in epilepsy à *putrescente*, upon seminal retention, venery may prove of such great moment as to occasion altogether its cure.*

This belief has prevailed until our days, acrimony of retained semen acting, according to Tissot,† as a powerful irritant of the organism in those instances of venereal epilepsy due to prolonged continence, and these views have been held by several other French writers.

The preceding notion has not prevented the recognition of venereal excesses among the principal causes of epilepsy by Aetius, Galen, Arethæus, and subsequent authors. Moreover, a kindred resemblance was sup-

* "Geneanthropeia." Romæ, 1643, p. 886, C.

† "Traité de l'Epilepsie." Lausanne, 1785, p. 73, §26.

posed between epilepsy and coitus, the former being not infrequently induced during the latter, which was compared by Democritus to a slight seizure *μικρα επιληψια*, or, as Faustus has described it—

“Turpis, et est morbi species horrenda caduco.”

A young man, observed by Schenck,* always saw a woman offering herself laciviously to him, during his epileptic paroxysms, which were ended by seminal emission. The same author refers, besides, to a case in which Salmuth (Cent. i, obs. 99) remarked convulsions of the testicles during the fits.

Either as a practical result of this supposed essential participation of the genital organs, or of those in regard to the hurtful influence of the retained and corrupted semen, emasculation has been, from early times, employed as one of the remedies for epilepsy, still empirically tried in desperate cases. Eunichism did not exist in the Greek or Roman Republics, except as spontaneously self-practiced by the priests of Cibeles and of Diana Ephesi. But the Roman Emperors introduced it from Asia, about three centuries after the Republic, and it seems that emasculation against epilepsy was used by Coelius Aurelianus, and was copied from him by E. Platerus and Mercatus.

Heurnius† performed the operation on several of his patients, and his practice is favorably cited by Sinbaldi and other classical authors of the seventeenth century. The celebrated Jean Taxil, who flourished during the latter part of the sixteenth century and the beginning of the seventeenth, says: “Some have advised eunuch-

*“Joannis Schenchi Observationum Medicarum Rariorum.” Frankfurt, 1665, Lib. i., “De Epilepsia,” p. 104.

† “Opera Omnia, Postrema Editio,” Lugduni, 1658. “De Epilepsia,” Ch. xxiii, p. 421.

ism to cure such malady (epilepsy), though I believe not intending to cure it thereby, but to prevent its transmission to offspring.* Hector Boethius† leaves no doubt as to such having been the declared object of the custom among the primitive Scots. "He that was trublit," says he, "with the fallin evil, or fallin daft or wod, or havand sic infirmite as succeedis be heritage fra the fader to the son, was geldit, that his infectit blude suld spread na firther. The woman that was fallin lipper, or had any infesion of blude, was banist fra the company of men, and gif she consavit barne under sic infirmity baith she and her barne were buryit quik."

This is the first and only legal measure against the hereditary spread of epilepsy that we have found distinctly recorded, in addition to the incapacity of epileptics to marry, pronounced by the Greek Church, and the local edict forbidding their marriage, issued in the middle of the last century, by Prince Stolzenberg de Hutten, Bishop of Spire. Of these three measures, the first has been the most radical and barbarous. Burton, after justly remarking that it was "done for the common good, lest the whole nation should be injured or corrupted," adds, "A severe doome you will say, and not to be used amongst Christians, yet more to be looked into than it is."‡ It is still empirically tried in desperate cases, and especially in those connected with masturbation, though not always with successful results.

The Mosaical and Roman laws make no allusion whatever to the marriage of epileptics. Nor did the Athenians forbid it, who, to prevent the degradation of their race, put to death all children born with any

* "Traité de l'Epilepsie, &c." Tournon, 1603, p. 229.

† "Croniklis of Scotland," trans. by John Bellenden, Edinburgh, 1536, Lib. 1.

‡ "The Anatomy of Melancholy." Oxford, 1621, p. 85.

infirmity—a terrible measure which, on the other hand, does not seem to have guarded them against the prevalence of the sacred disease or *lues deifica*. The Romans regarded marriage as a contract terminable at will. Among Christians, the spiritual and sacramental nature of the nuptial bonds consecrated them as indissoluble, and in questions concerning their validity or dissolution, the Church was the supreme unerring judge. Luther and Melancthon proclaimed marriage a mundane affair, not concerning any church regulation, but the practice in the German Empire continued, notwithstanding this declaration and the schism, without departure from the primitive Catholic canon, until the Emperor Joseph II introduced into the German statutes the principle advanced in France by Launoy—that marriage is a civil contract, under the exclusive jurisdiction of temporal authorities, the sacrament being a purely accessory thing benevolently added to it by the Church. For this reason we do not find, until the seventeenth century, in countries where the Reformation has been triumphant, divorce laws with special enactments in reference to epilepsy, as it may vitiate or render null and void the marriage. Before considering them we shall briefly notice the older *dicta* of the Ecclesiastical Court in Rome, which are still enforced in almost every Catholic nation belonging to the Latin race.

In 1588, Michael Syrum and Diana Brandanima, both of Greek extraction, were married in Venice, according to the Greek rite, and had a daughter who did not live long. In 1602, Syrum being enamored of another woman, or for some other motive, applied for the dissolution of his marriage, on the ground that he had acted by fear of paternal threatenings, *ex metu reverentiali*, and because Diana deceived him, concealing that she suffered from epilepsy at the time of marriage. Epileptics are by the Greek rite deprived of legal capacity to marry, and, confident in this, Syrum submitted the case to a Greek Prelate at Venice; but he decided against

Syrum, who was equally unfortunate on his appeal to the Auditor of the Chamber that confirmed the sentence. The case was then carried up to the Rota at Rome. This tribunal pronounced the Prelate's decision unauthorized by the Pope, or the Patriarch at Constantinople, whereas the Auditor's sentence was also void for his want of jurisdiction over matrimonial matters. But it did not thereby sustain Syrum's petition, for the supreme decision, besides rejecting the plea of intimidation, and noticing the fact that Syrum could not claim the benefit of the Greek canon while he lived subject to Latin laws, sets out the following no less adverse conclusions in regard to the second allegation in the demand:

"17. Epilepsy does not prevent or annul marriage."

"21. It is an erroneous sentence to annul a marriage already contracted, by reason of epilepsy."

"22. The Roman Church does not tolerate indistinctly the Greek rites in her divine celebrations, but only those approved by the Apostolic See."

"24. Neither laws nor customs have any force against divine rights."*

The above decree of the Ecclesiastical Court at Rome—that epilepsy does not prevent marriage—was altogether disregarded when the Prince Bishop of Spire, as previously stated, issued, in 1757 and 1758, an edict to the tribunals of his own dominions, forbidding the marriage of epileptics, under severe punishment of those who, by fraud or otherwise, should contribute to its execution. This important enactment is cited by Mahon† and Delasiauve,‡ but without indicating its bibliographical source, which we have unsuccessfully searched for to see the grounds exposed by the learned Jesuit Bishop for his judicious measure, in opposition to the maxim laid down by the Supreme Roman Tribunal, that epilepsy does not prevent marriage. This maxim reverses older decisions, often

* "Pauli Zacchiæ Quæstionum Medico Legalum, etc." Tomus Tertius. Lugduni, 1678, "Decisio, lvii, Rot. Rom.," p. 107.

† "Médecine Légale et Police Médicale." Paris, 1807. Tome iii, p. 92.

‡ "Traité de l'Epilepsie." Paris, 1854, p. 530.

applied, of Saint Thomas and other recognized authorities in the Roman Church, and which, most probably, had greater force not to hinder the edict of the Bishop Spires. They especially refer to epilepsy as a grave and incurable infirmity, which, like ozena, syphilis, or any other contagious malady, may become a cause to dissolve the espousals or *sponsalia*, as cited by Sanchez* and Zacchias† in their standard works.

The Greek Church, as just noted, regards the epileptics as incapacitated—*inhabiles*—in respect to marriage. This law is mentioned by Zacchias, who adds, as it is also asserted by Du Preau‡ and others, that no impediment is raised by the Greek Church to voluntary divorce.

The terms of the Ecclesiastical Laws in Saxony are quite explicit in reference to epilepsy as a cause for repudiation. Marriage, as stated by Benedict Carpzov, | may be annulled on account of epilepsy, paralysis, or other contagious malady affecting one of the parties; or, when any of said maladies existed already before marriage but was concealed; it being further provided, that, prior to granting the divorce, the circumstances of the case should be prudently considered to ascertain whether both parties were cognizant of the fact and therefore consented willingly to marry; and, before deciding the dissolution of the matrimonial bonds on the plea of any contagious or loathsome disease, time should be fixed to determine positively that this is really incurable.

* "De Sancto Matrimonii Sacramento Disputationum, etc." Lugduni, 1739. Tomus Primus, Lib. i, p. 106.

† *Op. cit.*, Tomus ii, n. 18, p. 773.

‡ "De Vitis, Sectis, et Dogmaticum Omnium Hereticorum, Gabrielum Praetorium Marcorsium," Coloniae, 1581. Lib. vii, § 15, p. 208.

| "Jurisprudentia Ecclesiastica seu Consistorialis." Lipsiae, 1781, Lib. ii, Lib. x, p. 268.

In the case of Heinrich K., and Kunigunda, the daughter of Daniel E., it was alleged that Kunigunda, on account of epileptic fits, had become unfit for the matrimonial state, wherefore both earnestly prayed to be allowed to have their marriage vows annulled, and the President, Assessors, and Upper Consistory, decreed, the 27 April, 1621, that it should be so granted.

Andrea Bayer,* in his supplement to Carpzov's work on Ecclesiastical Jurisprudence, refers to a subsequent decision of the Supreme Consistory, dated October 15th, 1703, and enumerates the incurable and contagious disease therein judged cause of divorce, namely, *Leprosy, Epilepsy, Phrenesis, Morbid Gallicus, Phthisis, and Hydrops*, to which are also referred Apoplexy and Paralysis. Whenever one of the parties shall ignore that the other suffered from any of said diseases before marriage, or when the disease happens subsequently to it, there is cause for repudiation, provided it is the positive judgment of the physician that such disease is contagious and incurable.

Michael Alberti relates another very interesting case tried before the Supreme Consistory, and favorably decided the 17th December, 1736.

The petitioner, a woman, K., applied to the Ecclesiastical Court to make the celebration of her marriage null and void, because her betrothed, U., had epilepsy. The petition sets forth that he had fallen into ill-health, i. e., epilepsy, when young as well as of late years. The Leipsic Faculty was consulted whether such a man, who had in late years been so afflicted, was in danger of becoming attacked again with the above-mentioned epileptic disease, and whether the woman who marries him need be afraid of her own constitution suffering thereby.

In a lengthy report, in which all the circumstances connected with the case are carefully examined, the faculty replied : that such

* "Additiones ad Benedicti Carpzovi Jurisprudentia Ecclesiastica vulgo Consistorialia." Lipsiæ, 1782, p. 128.

cases are very rarely cured. That epilepsy is certainly not contagious: the Faculty does not say that K. will either become epileptic, or that her life must be in danger, but holds the opinion that all the circumstances adduced may easily prove injurious to her health.

The Halle Faculty was also consulted on the case, submitting for their consideration that, when at school U. was struck by the master on the head, and the blow was followed by epilepsy, to which he continued subject thereafter. He was betrothed to K., but before the celebration of the marriage, she began to be afraid of the fits, and dreaded an unhappy marriage. She thought that, under such circumstances, her espousal was not valid or obligatory, but could not be dissolved on account of such a severe disease. She asks the Faculty's opinion, as her lover has not (from being treated medically) had fits for two years. The Faculty, in reply, express the fear that anxiety of life and matrimony will renew the attacks, particularly because the marriage act is very injurious to epilepsy, or to those who were formerly affected with epilepsy. Considering that coitus is already called by some authors a slight epileptic fit, which affects either the brain and the whole generative functions so as to render the subjects impotent, or unfortunate parents, by conveying to their children an incurable disease; therefore is applied to this case the principle established by Stryck and Nicolai in regard to impotency as a cause for the dissolution of espousals. The faculty concludes that it can not be maintained, with consistency, that U. is entirely freed from epilepsy, and that one must fear rather from manifold causes, and particularly from the restraint and anxiety of married life, a severe relapse. Petition granted.

There was subsequently an appeal from this decision, but no judgment appears to have been given as to the propriety of marriage. All that the statement signed by the judge amounts to is, that U. was then (17th December, 1737) sound in health, and able to work like other young men.* The inference is that the judgment was reversed.

The laws of Denmark do not differ from those of Saxony. They provide among the various causes for repudiation or nullity of marriage, that—"§ 74, n. 7. If it

* "*Michaelis Alberti Jurisprudentia Medica.*" Lipsiæ, 1737. *Casus*, xxiv, tomo quarto, p. 490, et *casus* xxv, tomo quinto, p. 649.

should be discovered that the husband, or the wife, has concealed some secret disease, as for instance, leprosy, epilepsy, or any other kind of contagious or loathsome affection, existing before they united in marriage, their divorce, if wished, may be granted. But, should he or she become afflicted with any of such maladies after celebration of marriage, a certain length of time should be fixed on to employ suitable remedies to expel the malady, and if the diseased person is unable to do it, the marriage then should be declared void if so petitioned.”*

The Ecclesiastical Law of the Church of England makes no especial reference to epilepsy as a cause to invalidate or annul marriage. The common law treated the marriage bond as indissoluble, until 1857, when the Statute 20 and 21 Vict., c. 85, took away from the Ecclesiastical tribunals all civil jurisdiction over the subject of marriage and its incidents, conferring it entirely upon courts of justice, with jurisdiction to grant divorces *à vinculo matrimonio*. We are not aware, however, of epilepsy having been ever interposed as a cause for divorce, nor that it has invalidated in Great Britain, a contract of marriage, under the modern resolution of the civil courts, that the marriage of a lunatic not being in a lucid interval is absolutely void. Although epileptics are not legally considered as lunatics, they not unfrequently fall into a condition in which they accomplish their acts automatically, in an unconscious manner, that necessarily vitiates them and renders them not binding in law. We shall presently cite a recent case in which marriage would have been consummated under these circumstances, if it had not been prevented, at the very moment of celebrating the nuptial rites in the church, by the relatives of the epileptic.

* “*Regis (Gloriosiss. Memoræ) Christiani Quinti Leges Danicæ.*” Trans. into Latin by Petrus A. Höyelsinus, Hauniæ, 1710. Lib. iii, p. 270.

This irresponsibility appears distinctly recognized in the case of Abbot Gatus,* subject to violent epileptic fits, and who, under the influence of one of his attacks, executed an instrument that was declared, on this account, void by the Roman Court. It was in this case that Zacchias asserted that epileptics are wholly irresponsible for some days before their fits, and *in gravissimo morbo*, or very severe attacks, for three days after.

As a complement to this doctrine, subsequently held and acted upon by different medico-legal authorities, Zacchias sets down that, in *levioribus epilepsiis*, or *petit mal*, the patient, contrary to what happens with the very severe fits, is neither before nor after the attacks of unsound mind. We need not insist on the incorrectness of this latter assertion; nor is the term of three days' duration of the epileptic insanity after the severe attacks, by any means its extreme or invariable limit, as supposed by Zacchias. When describing the true epileptic nature of the unconscious state here considered in relation to acts of violence,† we presented a series of cases of *petit mal* and vertiginous fits, with which these prolonged, singular mental paroxysms of real insanity are commonly associated. The following is an instance of marriage celebrated during one of such paroxysms of mental epilepsy:

In August, 1873, a young epileptic, heir to a large fortune, and belonging to a noble family, was induced to marry, during one of his mental attacks, a common young actress from the Bowery Theatre, New York. Neither his mother, then absent, nor his intimate friends became cognizant of the occurrence until he sent his wife away, in the most violent manner, from the hotel where they had been lodging for two weeks after their civil marriage.

The actress immediately instituted legal proceedings against him, who denied the acts he had accomplished at the time of the

* P. Zacchias, *op. cit.*, Tomus Posterior, pp. 161 et 162.

† "American Journal of Insanity," April, 1873, Vol. xxix.

marriage, attributing, very angrily, the action brought against him to a deliberate swindle on the part of the actress' mother, who shrewdly projected and carried the marriage into quick execution, profiting by the mental condition of the spendthrift young man. But the evidence against him left no room to doubt as to the reality of the marriage. Although subject to occasional attacks of *grand mal*, only in the morning, and to daily fits of *petit mal*, followed by an unconscious state, during which he executed the most extravagant and lavish acts, epilepsy was not suspected as the cause of his strange conduct at the moment of the marriage.

The morning he ejected his wife from his apartments, he had just recovered from one of his convulsive seizures. Anxious to avoid scandal and disgrace to the family, his mother paid a large sum to the actress to stop all legal proceedings against the young man, who was sent abroad, and his divorce obtained without opposition.

We now pass on to narrate a no less remarkable example bearing some similarity to this, to which we have already alluded.

The case, that of "*Sans v. Whalley*," came before Mr. Justice Manisty and a common jury, at the Bail Court, Westminster, on the 3d of May, 1880. It was an action brought by Isabella Sans, a widow (who was until recently a beershop-keeper at North Woolwich), to recover damages from Joseph Lawson Whalley, a widower (Holly Terrace, Leytonstone), for breach of promise of marriage. The damages were laid at £2,000.

For the last three years the defendant, since the death of his mother, had given way to drink a great deal. He had as many as six epileptic fits a night, followed by insane attacks, when he would ask if his wife was dead, and why she had been buried without his knowing it. He was in the habit of visiting Mrs. Sans' house, and on several occasions proposed to make her his wife; but she refused on account of misgivings as to his intemperate propensities. On September 11, 1879, the defendant renewed his demand in the presence of three other persons, and, to make assurance of his engagement, he asked for paper, pen and ink, requested that the eldest son of Mrs. Sans should be sent for, to know if he had any objection to the marriage, which he had not, and thereupon Mr. Whalley wrote out the following promise: "I agree to marry Mrs. Sans to-morrow by license. (Signed) JOSEPH LAWSON WHALLEY."

He then gave her a diamond ring, which was lent to him by his aunt, as an engaged ring. On the following day he came to London, and, accompanied by Mrs. Sans and her brother-in-law, they went to Doctors' Commons for the license, and he paid for it with a five-pound note, obtained by Mrs. Sans' pledging two rings of hers and the one Whalley had given her. He asked Mr. Sans to take the license to the church, so that they might be married at eight o'clock on the following morning. He slept at Mr. Sans' that night, and on the following day they all three, and Mrs. Sans' daughter, went to the church, which was not open, for the sexton was at breakfast; but when he came, the Brightmores—relatives of Mr. Whalley—and other people were crowded outside of the church. Mr. Brightmore seized hold of Mr. Whalley's arm, and said: "Come away Joseph; you shall not marry that woman." Mr. Whalley replied "I am perfectly sober and know what I am doing; if you come near me again I will have you locked up." In the church, Mr. Beele (the Vicar) took Mr. Whalley into the vestry, and informed him that he had received a communication from Dr. Vance stating that Mr. Whalley was suffering from delirium. The latter remarked: "What a shame I can not marry the woman I like. Had I known it I would have obtained another medical certificate." The Vicar asked Mr. Whalley, in the presence of the Brightmores, what were his intentions, and he replied: "To make Mrs. Sans my wife, as I have intended for the last seven months," on which the minister said: "That does not look like insanity, Mr. Brightmore."

Dr. Sharpe, of North Woolwich, who had been brought to examine the defendant, saw him in the vestry of the church. He exhibited symptoms of delirium tremens—hard drinking must have been going on to produce them. He was unfit to contract matrimony, and advised him to delay it for a fortnight, which he was willing to do. But, although so agreed, Mr. Whalley failed to keep his promise at the expiration of the fortnight.

Mr. Mitchell, assistant to Dr. Sharpe, corroborated his testimony.

Dr. Vance testified that he had attended the defendant on several occasions for epilepsy and delirium tremens. Some of the symptoms were very severe; but he did not see the defendant professionally between the 21st of August and the 14th of September. He found him on the latter day in a high state of delirium. (This was the day after he wrote the communication to the Vicar.)

Mrs. Brightmore, aunt to the defendant, testified that he had fits; as many as six a night, followed by insanity, and also delirium

tremens. On the 3d and 4th September he had fits. She procured Dr. Vance's certificate, and gave it to the clergyman. She brought Dr. Sharpe and Mr. Mitchell to examine the defendant, who left the church with Mrs. Brightmore's sister, and was then in a bad state, and had fits.

Mr. Whalley said: I am the defendant. I am 33 years of age, a widower, with two children. I went to live at North Woolwich about February, 1879, with Mr. Brightmore, a cousin of mine. I have given way to drink a great deal, and at different times I have been attended for disease brought on by drink. I was in a drunken state from March to September, 1879—never thoroughly sober. I used to drive about and visit my friends. When I walked about I used to meet friends, and go off with them drinking. I was in a fearful state of drunkenness in September, and can not remember any particular day dining at home. I have gone occasionally to plaintiff's house to drink. I do not remember being there on the 11th September. (The written promise to marry produced.) I have no recollection of anything about it, or of going to London with the plaintiff or her son, and going to Doctors' Commons. I have not the slightest recollection of it, or anything that was done there, or at North Woolwich. I don't recollect being in the church to be married. I was told of it several days after; I was quite surprised when I heard of it. I was laid up for some time after I was told of it, with delirium tremens. I believe the signature to the application for the license to be mine, but I have no recollection of signing the document. I do not know what has become of the license. My wife died in July, 1878. I am now under medical treatment.

Other witnesses also deposed as to defendant's drunken habits.

Counsel having addressed the jury, the Judge summed up, and the jury returned a verdict for the plaintiff—damages £25.

In this case, delirium tremens seems to have been assigned as the cause of the defendant's conduct; but it is manifest that his condition and demeanor were not those consequent thereon, whereas they quite agree with the paroxysms of epileptic insanity, ordinarily displayed by individuals who can imbibe large quantities of liquor without any remarkable sign of intoxication or of delirium tremens, which may, nevertheless, suddenly explode as a forerunner of a convulsive attack,

upon some potation beyond the habitual quantity. In delirium tremens there is a group of symptoms that can not be mistaken. The terrifying hallucinations, the melancholy with homicidal or suicidal tendencies, the stupor, and, above all, the trembling of the facial muscles, with quivering of the hands and limbs, are phenomena too obvious not to have been noticed as proofs of legal unfitness in Mr. Whalley by those to whom he applied for the license at the Doctors' Commons, or by the Vicar of the church, on the morning of the 13th September. Nor was the least allusion made to a single of these striking symptoms by any of the witnesses.

On the other hand, and this is a point strongly bearing on the case, epilepsy in delirium tremens exists, it is true, without any relation to the motory derangement, and may even set in with hardly any tremor; but it never occurs without the delusional mental manifestations evidently wanting in this instance. On the contrary, chronic alcoholism may persist for a long while, with no other conspicuous effect than epilepsy, like that arising from other ætiological sources. But, under such circumstances, the mental, or the vertiginous kind of attacks, are the most commonly observed, and the latter are frequently associated with sudden acts of violence, or with an automatic unconscious state, similar to somnambulism, which may last several hours, or even days, and generally terminating, as in Whalley's case, by a violent maniacal or spasmodic paroxysm, the transition to a sound condition of mind taking place, in every instance, after a long, profound sleep. And then, the epileptic exhibits absolute amnesia of what he has done automatically, in an apparently conscious manner, during his mental paroxysm.

The communication sent to the Vicar by Dr. Vance, stating that Mr. Whalley was suffering from delirium tremens, has no legal value, since Dr. Vance, as he testified, had not seen Mr. Whalley professionally between the 24th of August and the 14th of September, which was the day after he had already written such declaration.

It would seem that, when Dr. Sharpe was brought to see Mr. Whalley, he exhibited some motory trouble, which the doctor regarded as symptoms of delirium tremens, but which, we rather think, was indicative of the threatening fits Whalley had after leaving the church with Mrs. Brightmore's sister. Moreover, this terminal convulsive stage of the mental attack was, as usually, attended with the high state of delirium noticed by Dr. Vance on the 14th of September.

Finally, the series of acts executed by Mr. Whalley in relation to his marriage is not compatible—we repeat it—with any form of delirium tremens, whereas the singular occurrence and complete oblivion, of such acts, bear all the characteristics of epileptic insanity. Facts not disclosed at the trial may yet alter these views; but, based on the above reasons, and the testimony of which we have reproduced the main points, we regard Whalley's case as a typical one of alcoholic epilepsy, his insanity not differing symptomatically from that of other kinds of epilepsy. The only remark we should add, in conclusion, and in reference to the judicial decision, is, that no breach of promise could have been committed by a man who was evidently in an unfit mental condition to contract any legal obligation at the time when he made and signed the promise of marriage.

The laws and religion of France consider the marriage bonds indissoluble, because the civil contract of marriage can not be executed without the mutual consent

of the parties, which involves their sanity and free-will at the time. Legrand du Saulle* rejects the idea of introducing into the civil codes pathological grounds for judicial separation or dissolution of marriage, and deprecates in strong terms the social evils that would flow out therefrom. For "want of French observations of such a striking interest," Legrand du Saulle cites an example, borrowed from the "American Journal of Insanity," to illustrate the dissolution of marriage on account of epilepsy, maniacal furor, and murder. This often-cited observation, at first quoted from the "American Journal" by Falret, in his standard Memoir on the "Mental State of Epileptics," has been copied therefrom by Legrand du Saulle and other French medico-legal writers, but without noticing that the case has been decided by the French Court at Mantes, and not in America, upon the most judicious and convincing argument of M. Amelot, Royal Procurator. This case establishes an important precedent which has thus passed ignored. On this account we here present its faithful translation.

"Civil Court at Mantes (Seine et Oise), Presided by M. Castel.—Audience of the 28th December, 1844.—Marriage contracted by an epileptic.—Application for its nullity.—Murder of the father-in-law the very day of the wedding."

"This strange trial, perhaps without example in our judicial records, raised the most perplexing medico-legal question of ascertaining the mental disposition of a man subject to epilepsy, during the hours immediately preceding a furious fit, and whether such disposition deprives him of exercising his free-will."

* "Etude Médico-Légale sur les Epileptiques." Paris, 1877; p. 217.

"The following are the circumstances of the case: François Levieil, aged twenty-eight, a shoemaker at Jusiers, had suffered for several years from epileptic fits. The malady commenced from a fall on the ice. The attacks, at first confined to slight fugitive absences, assumed subsequently a most serious character, degenerating into furious mania. During the years 1838-39-40 and 41, Levieil served in the 5th Light Regiment, in which he pursued his trade of shoemaker as private out of the ranks of the company. He then had frequent epileptic fits, almost always preceded by a short loss of consciousness, during which he would either take the hammer, the knife, or any other tool at hand, to use it as an auger, or would again use this latter instead of a hammer, thus becoming, by such awkwardness, the laughing-stock of his comrades.

When discharged, Levieil returned home in September, 1841, determined to marry and to keep on with his trade. He became soon affianced to the daughter of François Moron, a farmer of Jusiers, and the marriage was fixed for the 26th of the following October. On the 24th Levieil was seized with pains in the head, which seemed to him a forerunner-sign of an attack. He called on a physician at Meulan, who had treated him secretly since his return, and asked that he might be bled—an operation from which he had always derived relief; but the physician refused to do it, remarking that he should not abuse this remedy.

On the morning of the 26th, a few hours before the ceremony, Levieil, suffering from ever-increasing pain, was bled by another physician at Jusiers, but this late operation afforded slight relief to his persistent headache.

However, the civil as well as religious ceremonies took place. Levieil behaved himself properly; he seemed calm and composed, but deeply taciturn; he uttered no word beyond the inevitable *yes*. Did such a calm and concentration and silence indicate in him the state of a man who thinks and reflects profoundly on the importance of the engagements he is about to contract? or, did they not rather evince the dreadful symptoms observed by science in epileptics during the moments preceding their acts of fury? Be this as it may, on leaving the church, Levieil suffered from such a violent headache that using his own expressions, "it seemed as though a boiler with boiling water were within his head." He accompanied the wedding party to the house of his father-in-law, located opposite his own; but they were obliged to lay him in bed, in a room adjoining that in which the nuptial dinner was spread. Then the fit of furious epilepsy explodes, suddenly developed after

much uneasiness, and quickly reaches the extreme of the paroxysm. He throws down the persons with him, and, while they run out to get ropes to bind him, he rushes out of the house in his shirt, takes hold of a shovel, sees a woman, pursues her and knocks her down with a blow on the head. His brother-in-law interposes to stop him; but he and those who accompany him are in turn chased. Leveil then lies on the ground before his house-door, grinding the pebbles with his teeth; after a while, stands up and goes in to get a shoemaker's knife; he burst open the door of his father-in-law, Moron, and rushes in, saying, "I must kill you all." The first person that he met was his father-in-law, who, on the instant, falls dead, pierced by several blows with the knife.

The attack which had these terrible consequences, continued for three consecutive days, during which they had to confine this wretched man in a sack. On the 29th, Leveil had recovered his senses, and, only remembering the circumstances of his marriage, he had altogether forgotten what had occurred subsequently, and believed that he had constantly slept since that time. He was a few days afterwards transferred to the *Maison de Santé* at Clermont, where he still remains, and whence he will probably never come out, for his malady is incurable, and, although the fits are rare, they are of such an extreme, sudden violence, that his confinement will be always necessary to public safety."

"Under these circumstances, the guardian of Leveil, who had been interdicted, applied to the Court for a declaration of the nullity of the marriage, on the ground that, at the time of its execution, Leveil was already under the influence of his disease, and, therefore, incapable of giving a free consent.

M. Legaux, of Mantes, the advocate, urged strongly the application; he tried to show that Leveil's insanity existed already during the hours preceding the marriage, sustaining his assertion by the opinion of Dr. Bonneau, charged the day after the events, to visit Leveil to inquire into his mental condition.

Mr. Escaude, counsel for Mme. Leveil, chiefly interested in the success of the application, spoke on the same strain, appealing to the Court's equity.

M. Amelot, Royal Procurator, calls the attention of the Court to the singular and anomalous position of this married couple separated for ever after a dreadful event, without having ever cohabited, and who, should the marriage be maintained, will remain no less bound to each other by the inflexible law. He recalls the whole circumstances of the affair, laying particular stress on those which seem to indicate that on the very morning of the marriage-day, Levieil was in a bodily and mental condition that rendered him unfit to give a free consent. Levieil, he said, behaved himself decently at the municipal office, and the church; he answered to the sacramental questions, but, was he not at that moment under the thralldom of that terrible malady which was to manifest itself, on coming out of the church, by the furor and homicide? Was not the profound taciturnity, remarked by the witnesses to the marriage, the very sign of a reason already overwhelmed and half paralyzed by that violent headache, which Levieil, in his recollections, compared afterwards to boiling water in a boiler? The little intelligence and will that were then spared sufficed him, undoubtedly, to walk freely and, in case of need, to utter some monosyllables; but, did this intelligence, did this will, undermined by a volcano ready to explode, allow him to understand in all its gravity, the importance of the act he was accomplishing?

On this point the magistrate's conviction could only be formed upon consulting science and the experience of men who have thoroughly studied this kind of maladies, and who assert, that in certain epileptics the acts of fury are ordinarily preceded by a period of calm and taciturnity more or less prolonged, throughout which a progressive process of intellectual derangement, ultimately leading to furious dementia, takes place. We do not pretend to demonstrate by rigorous proofs the

mental situation of Levieil at the moment of the ceremony of his marriage. Proof of insanity, when such insanity is not yet betrayed by words or acts, but by calm and silence foreboding the storm, can only be furnished by God. We rest only on presumptions, but they are grave; they are based on the study and observation of analogous facts by experts, and they suffice, if not to lead us to a certitude—at least, to create a doubt. Therefore, the doubt, on a question intended to decide if the union stamped with such an appalling episode has been freely contracted, ought not to be interpreted in an unfavorable sense to the wishes of the two families who jointly pray for its nullity.

The Court, agreeing with these conclusions, decided for the nullity of the marriage.”*

Far be from us any disposition to open the doors to legal precedents that might loose the indissolubility of the matrimonial bonds, but it is as clear an act of justice as any can be, and as incapable of being affected by any fundamental moral principle, that the Court at Mantes could not have arrived at any other decision than to pronounce null and void the marriage of Levieil. To the common judgment of mankind the equity and justice of this decision are self-evident, while the course pursued thirty-six years ago by the French Royal Attorney and Judge, evinces a correct humane appreciation of the singular ways in which the mind may become disordered, and insanity exist without apparent signs that are worth the attentive consideration of most public prosecutors and justices of our day.

An unpublished case, somewhat analogous to the preceding, has been lately communicated by the eminent

* “*Gazette des Tribunaux.*” N., 5528, Jan’y 7, 1847, p. 226,

Dr. Delasiauve to Dr. Hack Tuke, who has brought it to our notice, and kindly allowed us to quote it here:

In 1869 a bride and bridegroom had just met at the Mayor's office, when the municipal officer became informed, through an anonymous letter that the future husband was an epileptic. Thereupon, an explanation took place, accompanied by surprise at the disclosure, and reproaches of ill-will. The marriage was, however, accomplished at the Mayor's office and the church. But, in the midst of the wedding-ball, the husband, being seized with a fit, had to be removed into a room, and on his return to the party, in a quarter of an hour, fell again with a second fit. Dr. Delasiauve was consulted the day after. In consequence of the impossibility of annulling the marriage by the French laws, no other course was left but to postpone cohabitation, and to prescribe a treatment. The bride's family were acquainted with the Imperial Minister of Justice, and, on Dr. Delasiauve's advice, he was informed of all the circumstances of the case. Unfortunately they were not heeded. The married couple went to live together, at the end of three weeks, and they kept on living by themselves, supported by their respective families. The fits increased in frequency, until the unfortunate husband died, three years after his marriage, leaving three children.

The common laws in the American States do not offer great impediments in the way of married persons seeking to be divorced. We know, however, only of one instance (in New York) in which, eight months after marriage, the divorce was obtained on the grounds of ill-treatment during the furious fits of epilepsy, and desertion by the husband.

We remarked in the beginning that venery has, since the earliest times, been considered a remedy for certain kinds of epilepsy, wherefore marriage has been advised with that object. We have discussed this subject at length in our *Clinical Researches on Epilepsy*, and need not repeat here what we have there stated. Assuredly, "it is manifest," as Sieveking very properly notes, "that the difficulty of meeting with instances which establish

the point, sufficiently demonstrates the truth of the general law that marriage is not curative in epilepsy.* Dr. Collineau has lately advocated the marriage of epileptics, with theoretical arguments which seem very plausible, but are nullified by its lamentable results. Delasiauve,† with unsurpassed competency, has condemned this attempt to revive such false doctrine, for, as he observes, "it may be said, from a therapeutical standpoint, that the remedy is worse than the evil, as evinced by experience."

In proof of this we could cite, among others, the very eloquent and sad instance of a young man, of strong physical constitution, subject to nocturnal epilepsy, and who was prescribed, by a physician, to marry as the best remedy for his attacks. He followed the advice, concealing his malady from his unfortunate bride. But the fits, instead of abating, increased in frequency and intensity, until he suddenly died one night, four months after marriage, in a most violent paroxysm, immediately after coitus. His young wife remained pregnant, and gave birth to a child, who died at the age of five months, from hydrocephalus and convulsions.

A patient of the late Dr. Charles Budd of New York, having married, died upon a series of fits, after the first intercourse. She had also expected to be cured by marriage of her epileptic malady, notwithstanding the contrary opinion of Dr. Budd. This case recalls that reported by Felix Plater,‡ in which a young woman died, on the very first night of her marriage, of violent convulsions, induced, however, it is stated, by anger at the refusal of her brothers to consent to her

* "On Epilepsy," London, 1858, p. 113,

† "Journal d' Hygiène," Paris, 1879. Vol. iv, pp. 325 and 339.

‡ "Felicis Platerii Observationum, etc.," Basilea, 1641. Lib. i, p. 37.

wishes in regard to property matters. The widower claimed the dower, which was at first denied by the brothers-in-law, who finally paid him one thousand florins.

Intimately connected with the question of marriage, is that of the hereditariness of epilepsy, on which there is quite a difference of opinion among standard authors. Even some of those who recognize the powerful influence of an inherited constitutional tendency on the development of the neuroses and insanity, and Morel among them, do not admit the transmission of epilepsy from parent to offspring, while others reduce it to a very slight or insignificant proportion. Among the former, Lasègue further asserts that, "epilepsy (*la grande épilepsie*) being not a disease, but an infirmity, is acquired only in two possible ways: by traumatisms effecting permanent lesions, or by spontaneous deformity."* Without entering into the objections to these views, we shall merely point out the cardinal fact, disregarded by Lasègue, of the hereditary transmission through which structural peculiarities and infirmities (not in the broad sense of the term, but as here applied to the imperfect development of the cranial bones) are commonly acquired, and which upsets such restricted ætiology of epilepsy, rendering at the same time more inevitable its hereditary spread.

It will be of no practical importance to discuss the conjectured reasons for the negative results obtained by Tissot, Maisonneuve, Gintrac, Leudet, Morel, Delasiauve, and those who reject the hereditary transmission of epilepsy, sustained by Portal, Boucher and Cazauvieilh, Beau, Moreau, Trousseau, Foville, Voisin, and many others who have accumulated evidence so ponderous as to make the denied fact wholly irrefragable.

* "De l'Épilepsie par Malformation du Crâne," p. 12. Rep. from "Annales Méd. Psych.," 5e S. Tome xviii, Paris 1877.

Knowing how subject to uncertainties are the inquiries into the hereditary transmission of diseases, when studied from offspring to parents, we have proceeded in an opposite manner, and, starting from the epileptic parent, we have endeavored by researches, continued for more than ten years, to ascertain the real state of health of the offspring, excluding from our calculation every case in which we have not been able to verify the facts asserted. We are also aware that the same plan has been pursued by Foville,* Voisin,† Martin, and others, but on a smaller scale, though arriving at results agreeing with those presently exposed.

A series of 136 married epileptics—62 males and 74 females—begot 533 children, of whom:

	Males.	Females.	Total.
Died in infancy of convulsions,.....	89	106	195
Died very young from other diseases,.	16	11	27
Still-born,	9	13	22
Epileptics,.....	42	36	78
Idiotic,.....	11	7	18
Insane,.....	5	6	11
Paralytics,.....	22	17	39
Hysterical,	0	45	45
Choreic,.....	2	4	6
With strabismus,	5	2	7
Healthy,....	63	42	105
Total,.....	264	289	553

Taking into account that in one instance both father and mother were epileptics, we may represent in 134 families (136 individuals) the hereditary relationship:

From the paternal side in 61 cases.

From the maternal side in 73 cases.

From both parents in 1 case.

* "Annales Médico Psychologiques," Tome ii, 4e s., 1878 p. 120.

† *Ibid.*, Tome xii, p. 120.

The 73 females begat 298 children—116 males and 182 females; among the former 47 died of convulsions in infancy, and 28 were epileptics; whereas among the remaining 255 descendants from epileptic fathers, there were of the female sex, 24 epileptic, and 42 who died of convulsions in early infancy. This evidently shows that the transmission of epilepsy does not exclusively occur from the mother to the daughter, or from the father to the son, as supposed by some writers; but the epileptic mothers transmitted their malady to a greater number of offspring than the fathers, for the former begot 57 of the epileptic children, 107 who died of convulsions, and only 38 healthy.

Hereditary predisposition existed already among 87 of the parents—40 males and 47 females, in the following relationship:

	Males.	Females.	Total.
Had epileptic father,	3	5	8
“ “ mother,	6	4	10
“ “ grandparents,	3	2	5
“ “ brothers,	1	3	4
“ “ sisters,	5	3	8
“ “ uncles,	4	3	7
Had insane father,	3	6	9
“ “ mother,	6	8	14
“ “ grandparents,	4	5	9
“ “ brothers,	0	2	2
“ “ sisters,	3	2	5
“ “ uncles,	2	4	6
Total,	40	47	87

Epilepsy existed in the three generations in 19 of the male and in 27 of the female patients. Insanity in the grandparents re-appeared in the grandchildren in the families of two males and three females. Some, if not all the children begot by parents tainted with hereditary predisposition, exhibited unmistakable evi-

dences of it. Every case of insanity, except two among the females, issued from this class of tainted parents, who begot 321 children, affected as follows:

	Males.	Females.	Total.
Epileptic,.....	28	34	62
Insane,	5	4	9
Idiotic,	7	5	12
Paralytic,	9	12	21
Died of convulsions in infancy,	56	73	129
Died of other diseases in infancy,....	3	16	19
Died of hydrocephalus,	6	8	14
Still-born,	5	7	12
Healthy,	20	23	43
Total,	139	182	321

Of the above 43 healthy children, representing 13.39 per cent of the total in this series, 38 have already passed the age of 15, the eldest being 27 years. One of the males, aged 17, displays great musical talent. The 62 children who had epilepsy, with the 129 who died in convulsions, make a total of 191, amounting to 37.69 per cent of cases in the above table, in which the convulsive neurosis has been directly transmitted from parent to offspring.

Father and mother epileptic begot five children—two died of convulsion in early infancy; one of hydrocephalus; and of the remaining two girls, one seven years old is an epileptic imbecile, but her sister has a bright intelligence, although of a very feeble physical constitution.

One of the females became epileptic immediately after her first confinement. She displayed the most violent homicidal impulses. Her two first children died in infancy of convulsions, and the third, born at the hospital, was transferred to the Infants' Hospital. Her father, an epileptic and inveterate drunkard, mur-

dered his wife and two children during one of his fits, for which crime he was condemned to life imprisonment in Ohio.

The largest proportion of healthy children—62—issued from the 49 parents who did not exhibit any constitutional neurotic predisposition. They also begot 16 children with epilepsy, and 66, who died very young of convulsions, making 82, or 35.34 per cent out of their whole 232 descendants. The healthy offspring from these parents amounts to 26.81 per cent, and of them 45 have already passed the age of adolescence. In 23 of these 49 parents, epilepsy was developed from one to five years after marriage, and they subsequently begot 7 children epileptic, 11 who died in infancy of convulsions, 1 idiotic, 4 paralytic, and 37 healthy. Let us add that only 7 parents—6 males and 1 female—begot 18 children all healthy, whose ages are now from 13 to 20 years.

Epileptics with a neurotic predisposition have been comparatively less prolific than those without it, as shown by the subjoined table, with the children distributed according to the number by each of the parents.

Parents without inherited predisposition.			Parents with inherited predisposition.		
No. of Parents.	No. of Children.	Total.	No. of Parents.	No. of Children.	Total.
4	1	4	11	1	11
5	2	10	7	2	14
8	3	24	25	3	75
6	4	24	21	4	84
6	5	30	10	5	50
9	6	54	6	6	36
9	7	63	5	7	35
1	9	9	2	8	16
1	14	14
<hr/> 49	<hr/>	<hr/> 232	<hr/> 87	<hr/> ...	<hr/> 321

The ætiology of the 49 parents without inherited predisposition was:

	Males.	Females.	Total.
Intemperance,.....	7	4	11
Injury to the head,.....	3	1	4
Mental excitement,	2	3	5
Fright,.....	1	3	4
Dentition,	2	3	5
Insolation,	1	0	1
Fatigue and abuse of tobacco,.....	1	0	1
Malaria,	1	2	3
Establishment of menstruation,.....	0	4	4
Unknown,	4	7	11
Total,	22	27	49

Of these 49 patients, 38 had fits of *petit mal* and *grand mal*, 7 were subject to nocturnal epilepsy, and in 32, the disease was attended with obvious mental manifestations of an insane nature.

For the sake of comparison and as a complement to these inquiries, we shall briefly refer to parallel results we have collected, in respect to insanity.

A series of 122 married persons—57 males and 65 females—who have been insane, have generated 448 descendants—202 males and 246 females. As in five instances, insanity had existed in both parents. The total families represented by said persons, only amounts to 117.

Looking into the history of the 122 parents, we find: 38—13 males and 25 females—in whom insanity had been already developed prior to their marriage; 84—44 males and 40 females—in whom the invasion of insanity occurred after their marriage, and before the birth of the descendants here considered.

Hereditary predisposition to insanity was manifest in 68 cases—28 males and 40 females.

Insanity acknowledged no constitutional origin in 54 cases—25 males and 29 females.

Among the 38 who had been insane before their marriage, there were: 26—9 males and 17 females—tainted with hereditary predisposition.

Among the 54 whose insanity was accidental, there were: 21—8 males and 13 females—who had been insane before marrying; and 33—17 males and 16 females—who had become insane after.

The ætiological causes of the above 54 cases of accidental origin were:

	Males.	Females.	Total.
Mental excitement,	5	7	12
Excessive mental work,	3	0	3
Grief,	1	6	7
Intemperance,	5	3	8
Injury to the head,	1	0	1
Rheumatism,	1	3	4
Fever (malarial),	1	1	2
Yellow fever,	1	0	1
Pubescent insanity,	1	7	8
Protracted lactation,	0	1	1
Unknown,	6	1	7
Total,	25	29	54

The aggregate number of descendants from the 117 families has been, as already stated, 448, thus proceeding:

From the stock of 54 parents without constitutional taint—229 children—102 males and 127 females.

From the 68 parents with hereditary taint—219 children—93 males and 126 females.

The families springing out of each of these two groups, were respectively composed of the following number of children, distributed according to the number procreated by each of the parents:

From 54 parents without hereditary predisposition.			From 68 parents with hereditary predisposition.		
No. of Parents.	No. of Children.	Total.	No. of Parents.	No. of Children.	Total.
3	1	3	8	1	8
9	2	18	10	2	20
12	3	36	14	3	42
7	4	28	12	4	48
9	5	45	8	5	40
5	6	30	3	6	18
7	7	49	5	7	35
2	10	20	1	8	8
<hr/>			<hr/>		
54	229	68	219

In the epileptic and insane families the fathers have been less frequently affected than the mothers, who also have had a much larger number—no fewer than 60.26 per cent—of unsound daughters than of sons. Deducting the five families in which both father and mother have been insane, there remain 52 males and 60 females, of whom the former begot 210 children—102 males and 108 females; and the latter, 229—91 males and 138 females. In addition, there have been 27 males and 14 females, or 41 sound descendants issued from insane fathers, while the proportion among the progeny of 229 children of insane mothers is much lower, amounting only to 31—21 males and 10 females. Parents with a hereditary predisposition, as set forth in the above table, have not procreated as much as those who accidentally became insane, the fact appearing more strikingly with the insane than with the epileptic families.

We shall also incidentally remark, that six epileptics—four males and two females—besides three males and six females, among the insane, have been sterile. Having in view to ascertain to what degree epilepsy and insanity propagate their kind from parent to offspring, we have excluded these cases from our table.

The condition of the 448 descendants from insane parents has been as follows:

	From 54 parents without hereditary predisposition.			From 68 parents with hereditary predisposition.		
	Males.	Females.	Total.	Males.	Females.	Total.
Died in infancy of convulsions,	38	42	80	25	40	65
Died from other diseases,	6	8	14	7	6	13
Still-born,	3	5	8	7	4	11
Insane,	9	15	24	4	6	10
Idiotic,	2	7	9	3	4	7
Epileptic,	7	13	20	10	15	25
Paralytic,	6	4	10	6	5	11
Hysterical,	0	7	7	0	9	9
With neuralgia,	5	3	8	4	6	10
Ataxic,	2	0	2	0	0	0
Choreic,	1	3	4	2	4	6
Strabismus,	2	4	6	3	2	5
Deaf and dumb,	1	0	1	0	0	0
Somnambules,	0	2	2	0	0	0
Healthy,	22	12	34	28	19	47
Total,	104	125	229	98	121	219

The hereditary relationship of the 68 parents with a predisposition to insanity, existed in the following manner:

	Males.	Females.	Total.
Had insane father,	3	5	8
“ “ mother,	6	8	14
“ “ grandparents,	5	4	9
“ “ brothers,	0	2	2
“ “ sisters,	1	4	5
“ “ uncles,	0	3	3
Had epileptic father,	2	1	3
“ “ mother,	4	5	9
“ “ grandparents,	3	4	7
“ “ brothers,	1	2	3
“ “ sisters,	2	1	3
“ “ uncles,	1	1	2
Total,	28	40	68

In ten cases, four males and six females, insanity has existed for three consecutive generations, directly transmitted from parent to offspring, and in seven of these cases the transmission has been from the mothers to the daughters. Insanity has been exclusively exhibited by the female members of the family, for more than four successive generations, in the case of one of the females; several males in the family are, however, subject to neuralgias, or are tuberculous, and one of her brothers, aged thirty-seven, has unmistakable symptoms of locomotor ataxy.

In nine cases, six males and three females, epilepsy in the grandparents has been transformed into insanity in the second generation, to return again in the descendants of the third. In two males and three females, the spasmodic neurosis has descended from their respective grandmothers; and in the four remaining males, from the paternal grandfathers.

In one male, suicidal insanity has run through his maternal ancestors, equally affecting males and females. The patient's mother, after several unsuccessful attempts to kill herself, finally accomplished it by drowning. Two of her brothers, and her father, had also committed suicide. The patient is an only son, and was at the age of twenty-eight, in 1872, suddenly seized with violent mania and obstinate suicidal proclivities, which repeat at every attack of recurrent mania, that has ever since come on every year.

One of the females, who had been insane before her marriage, at the establishment of menstruation, has had ten children—three males and seven females. Two of the former and five of the latter are idiotic, with very asymmetric heads, and one of the remaining daughters is weak-minded. She has been married, but has been barren. Her sister, a strong-looking, intelligent woman,

is also married, and mother of four children, one of whom, a boy six years old, is epileptic and has congenital strabismus, with an obvious cranial asymmetry. This lady denies any hereditary predisposition to insanity in her family, although the highly neurotic temperament and eccentricities observed in several of her maternal uncles, with the degenerate condition of her brothers and sisters, as well as her son's affection, strongly betray it.

The foregoing analysis evinces again that the rate of mortality of the offspring of insane parents, is not much under that to which the progeny of epileptics are doomed. With these latter the death rate from convulsions in infancy has been 35.26 per cent (195 out of 553 descendants), whereas it amounts, according to our records, to 30.28 per cent among the insane. In this group, all the children of 3 males and 5 females died in early infancy of cerebral disease and convulsions. The same occurred in 7 male and 4 female epileptics. In each case, intemperance had either been the original, or the aggravating cause of the affection, except in one male epileptic, and in three insane females.

Eleven parents, seven males and four females, had an aggregate number of forty-one children, who have, all but two, passed the age of puberty, without signs of mental or nervous derangement. Two among the males spring from a stock tainted with insanity, and one has a sister epileptic; what fate is reserved to them remains yet very uncertain, as both are respectively thirty-six and thirty-one years old. In every one of these eleven cases, except with one single female, insanity had already existed prior to, but without recurrence after, marriage. In this female, violent mania exploded upon protracted lactation, about ten years ago, as she was aged twenty-two, and nursing her first child. She com-

pletely recovered, and has continued without relapse, but the youngest of her two other children died of hydrocephalus and convulsions, when scarcely three months old. Her two surviving children, respectively ten and seven years old, appear thus far healthy. The attack of insanity, in this instance, lasted over a year; and, we may remark, that one of this lady's sisters is subject to violent periodical neuralgia of the head, and her mother, who had been epileptic since the age of puberty, died quite demented in one of her attacks.

Before noticing the hereditary predisposition occurring in the ancestors of the 448 descendants here analyzed, we may state that they can be divided, in regard to their ages, into two distinct groups, viz:

1st.—337 individuals from the age of five to twenty-two years; and, 2d, 112 from twenty-two to forty-three years.

Bearing in mind that inherited insanity rarely develops itself before puberty, we may exclude from our calculation the first group, to confine our reckoning to the second of 112 individuals, among whom, 34—13 males and 21 females—have already exhibited the insane malady entailed on them by their parents. This proportion amounts to 30.33 per cent of the adult descendants. Assuming, as it is legitimate to suppose, that others of the remaining 337 younger descendants may at their puberty become insane, and raise the proportion, we may regard this as below its real figure, though nevertheless not widely differing from that previously alluded to, of 34.9 per cent, lately obtained by Dr. Savage at Bethlem, on studying the hereditary transmission of insanity, as traceable by the patient's family history.

A little over three-fourths (26) of the 34 insane descendants issued from parents who had been insane

prior to their marriage, and 24, or 70.58 per cent of the entire number of insane descendants, have been procreated by parents themselves hereditarily insane.

Insanity has re-appeared after marriage in 27—10 males and 17 females—of the 38 parents who had been insane before. They begat: 11 children—3 males and 8 females—insane; 5 children—2 males and 3 females—idiotic; 17 children—5 males and 12 females—epileptic; 3 children hysterical; 2 children—1 male and 1 female—choreic; 4 children—3 males and 1 female—paralytic; 4 children—1 male and 3 females—with neuralgia; 2 children (females) somnambule; 34 children—11 males and 23 females—died in infancy of convulsions; 2 were still-born; and, only 19 adults—12 males and 7 females—have been sound out of 103 descendants from these 37 parents, who, providentially, seem to have been the less prolific of the whole series. The same remark applies to the five families in which both father and mother were insane, for in the aggregate they only begat 9 children, of whom 2 are lunatics, 1 paraplegic, 1 choreic, 1 deaf and dumb, 2 died in infancy of convulsions, and the remaining two are sound. All the surviving offspring, except one lunatic and the deaf and dumb, are females.

Finally, the same comparative study extended to the progeny of parents affected with other constitutional nervous diseases, shows a great number of their children dying of convulsions in early infancy. In cases of chronic alcoholism, as we have already noticed it in our *Clinical Researches on Epilepsy*, the congenital nervous affections—chiefly epilepsy, or paralysis—of the surviving offspring, and its considerable extinction by convulsions in infancy, pointed out by Lamereaux, are no less striking facts, all of much weight, though hitherto overlooked, in the study of the

direct hereditary transmission of the neuroses and insanity.

Returning to the 136 married epileptics here considered, and to recapitulate, we have found :

1st.—68 whose descendants have been epileptic, and either idiotic, insane, paralytic, hysterical, or healthy.

2d.—61 whose descendants have been either insane, idiotic, paralytic, hysterical, choreic, or healthy. In addition, several other children in these first and second groups have died during infancy of convulsions.

3d.—Finally, as just noted, 7 parents have engendered children who have all arrived at the age of adolescence or puberty, without displaying any nervous or mental disorder. No infantile mortality has existed in these families forming an aggregate of 18 descendants—6 males and 12 females—two of the former issued from the only epileptic mother who belongs to this series, in which every descendant appears to be sound.

If we estimate the whole of those affected with the convulsive neurosis, out of the 553 children, we find 195 who died of convulsions in infancy, and 78 epileptics, amounting to 273, or 49.72 per cent of the cases in which an epileptic parent seems to have obviously entailed his disease without any change of type on the offspring.

Doutrebente,* in his prize essay, "Genealogical Study of Hereditary Insanity," says "The reproduction of similar types in the descendants is a fact only observable with suicidal insanity, but not with *epilepsy*, or any other kind of malady of the nervous centres. The hereditary morbid germ undergoing transformations, or progressive changes through each successive generation, does not remain stationary." This analysis clearly proves, however, that epilepsy is actually transmitted from parent to offspring without

* "Annales Médico-Psychologiques," Tome ii., 4 s., 1869, p. 394.

change of type, and, as it results, even in a larger proportion than insanity, which, according to recent estimates,* does not exceed, reckoning direct and collateral relations, 34.9 per cent (Bethlem). To the considerable number of those who die, during infancy, of convulsions is due, that we do not find, among adult epileptics, the evidences of the remarkable hereditary transmission of their disease. The proportion of those with it, who have survived, amounts in our estimate to 14.10 per cent, which is not far removed from the proportion (12 to 13 per cent) ordinarily admitted by French and English authors.

We have already stated that these results agree with those obtained by some French alienists. In a series of 32 epileptics collected by Jules Tardieu,† from observations reported by Foville, Voisin, Bourneville, and others, the direct transmission of epilepsy occurred in 23 cases—8 males and 15 females—begetting 72 children who were thus affected; 33 with convulsions, of whom 21 died in infancy; 1 insane, 1 imbecile, 1 eccentric, 1 very nervous, 1 with strabismus (who herself had 3 children, of whom 2 died in infancy of convulsions, and the third, very nervous, is subject to sudden fits of anger); 10 died in early infancy, 2 were still-born, and 11 are apparently healthy. In the remaining nine cases the parents had no children; but their ancestors and brothers, or collaterals, were saturated with a predisposition to epilepsy, or insanity. The epileptic father of one female observed by Bourneville, committed suicide; the mother also epileptic, died at the Salpêtrière; her brother is eccentric, and her sister epileptic. This patient had seven children: the first was still-born; three other sons and one daughter

* Bucknill and D. Hack Tuke, "Psychological Medicine," 1879, p. 57.

† "De la Transmission Héritaire de l'Epilepsie," Thèse. Paris, 1868.

died of convulsions in early infancy. Lastly, the father of another female married twice; by the first wife he had eight children, and all but the patient died of convulsions. By the second wife he has had nine children, eight have already died of convulsions, and the last, eighteen months old, has thus far shown nothing particular.

The father or mother had epilepsy in 18 cases, and in one of them both parents were affected. Epileptic collaterals were noticed in six cases; insanity, or other nervous disease, in seven; unknown, one. Epilepsy was twelve times oftener transmitted from the father to the son, or from the mother to the daughter, than from the parent of one sex to offspring of the other; and in no instance did the transmission appear from the mother to the son, which Tardieu regards as a curious coincidence.

Martin, from statistics that had been collected at the Salpêtrière, in 1874, and from those published by the French alienists we have mentioned, found that 19 epileptics begot 78 children, of whom 55 died in infancy, the majority of convulsions. Of the 23 surviving, 15 only were healthy at the time of the inquiry, and they were all very young.*

We may briefly add that, 83 families, observed by Lanceraux, in which one or more members suffered from diseases of alcoholic origin, had 410 children; of this number 108 (more than one-fourth) have had convulsions, and, in 1874, 169 were dead and 241 living, but 83 (more than a third of the survivors) were epileptic.†

* "Annales Médico-Psychologiques," 1878, and "Journ. of Mental Science," July, 1880, p. 313.

† "Gazette des Hôpitaux," April, 1879, p. 377.

Two of the cases here considered call for special notice, which we will give in conclusion, leaving the reader to draw his own inference from them.

The first is that of a young male epileptic whose family was tainted with a neurotic predisposition. I attended him in 1866, and treatment with the bromide of potassium rapidly arrested his attacks. He then decided to marry a first cousin to whom he was much attached. The father strongly opposed the marriage on account of the epilepsy and the consanguineous relation. We were consulted on the subject, and condemned the intentions of the young man, who, however, carried them out, leaving the paternal house. He has not only kept free from attacks, but is also the father of four healthy children. Another singular incident in this case is, that, prior to the marriage, and during one of the intermissions of the bromide treatment, the oxide of silver was prescribed for some neuralgic symptoms, and, without our knowing it, or suspending the bromide, continued uninterruptedly, for nearly two years after he left New York, his whole body undergoing thereby a dark bluish discoloration.

The other case is that of one of the females, seized with nocturnal spasms at the age of puberty, who continued to have them until she married, when they ceased and never recurred. This woman, however, has had four children, of whom the first died of meningitis and convulsions; the third is paraplegic, and, of the two remaining daughters, one became epileptic at the age of thirteen, on the establishment of menstruation three years ago. When we cited this example, ten years ago, in our *Clinical Researches on Epilepsy*, two of the offspring had only given evidence of the inheritance of a disease which seemed in abeyance in the mother. Let us also remark that no hereditary

taint of any kind is known to exist on the father's side.

Finally, we may legitimately conclude, from the facts recorded in this paper, that the direct hereditary transmission of epilepsy is a positive fact; and, that a serious responsibility rests upon any physician who counsels the marriage of epileptics, both as regards the parties themselves and the future of the offspring.

BIBLIOGRAPHICAL.

REVIEW OF AMERICAN ASYLUM REPORTS, 1879-80.

NEW HAMPSHIRE:

Report of the New Hampshire Asylum for the Insane: 1880. Dr. J. P. BANCROFT.

There were in the Asylum, at date of last report, 268 patients. Admitted since, 111. Total, 379. Discharged recovered, 128. Improved, 27. Unimproved, 22. Died, 17. Total, 94. Remaining under treatment, 285.

Dr. Bancroft notices the much greater ratio of women to men patients, in his institution, for a series of years. This gives rise to the inquiry whether there is a greater liability to insanity in the one than in the other sex. This question he answers by a comparison of the admissions for a series of years, and concludes that very little significance can be given to the fact. Owing to the policy adopted by the State of allowing the counties to take care of their pauper insane, the call for accommodations for this class has gradually decreased, until at the present time seventy-one per cent are "self-supporting, or dependent on friends and are private patients." It is true, however, that "among these a large proportion are people of slender means who would inevitably fall into the other class, and hence into the County Asylums, were it not for aid from the State appropriation for the indigent insane, and still greater aid from the income of the funds left for this purpose by noble men and women." This would show that in New Hampshire the tendency was to go backwards to the old system of taking care of the insane.

poor in county houses, and providing only for the well-to-do in State institutions.

As regards the prospect of recovery of those under treatment during the year, 251 of the number were apparently "hopeless" cases. Although the number of favorable cases is apparently so small, this can not, as the Doctor says, be made the only test of the usefulness of treatment in an asylum. The standard of curability "makes an unjust distinction between insanity and other diseases having, at best, no higher claim to sympathy and material aid."

As to the treatment, the point to be emphasized is this—that practice with the insane should start from the same standpoint with all other practice, and that each case is an individual study. The fact that the patient has been judged insane, has settled nothing further than the *place* of treatment. The Doctor's remarks upon this subject, in the statement of general principles, are judicious and correct. The financial condition of the institution is eminently satisfactory.

MASSACHUSETTS:

Sixty-Second Annual Report of the McLean Asylum for the Insane: 1879. Dr. EDWARD COWLES.

There were in the Asylum, at the date of last report, 154 patients. Admitted since, 76. Total, 230. Discharged recovered, 19. Improved, 27. Unimproved, 20. Died, 12. Insufficient trial, 1. Total, 79. Remaining under treatment, 151.

CONNECTICUT:

Fifty-Sixth Report of the Retreat for the Insane: 1880. Dr. HENRY P. STEARNS.

There were in the Asylum, at date of last report, 134 patients. Admitted since, 100. Total, 234. Dis-

charged recovered, 33. Improved, 16. Unimproved, 25. Died, 17. Total, 91. Remaining under treatment, 143.

The number of admissions has been unusually large, owing to the increased accommodations of the Asylum. The Doctor comments upon certain phases of insanity, dwelling particularly upon certain cases which seem to be upon the border-land between sanity and insanity. He gives, in some detail, the peculiarities of such cases and the difficulties encountered in their care. He advocates, in treatment, as much personal freedom as may be compatible with the safety and well-being of patients. As a means of amusement he has employed calisthenics which have been so long used by Dr. Kirkbride with success. In institutions where the great majority of the patients have not been accustomed to manual labor, and where the amount of land is so limited, that outdoor occupation can not be supplied, this kind of exercise must be valuable.

The restlessness and complaining of patients in the Asylum, is very properly referred to the character of the disease. "It does not come from asylum life or asylum care, or lack of care; it would be the same if they were in their own homes, and daily and hourly surrounded by their dearest friends and relatives."

NEW YORK:

Report of the Bloomingdale Asylum: 1879. Dr. C. H. NICHOLS.

There were in the Asylum, at date of last report, 188 patients. Admitted since, 77. Total, 265. Discharged recovered, 29. Improved, 34. Unimproved, 11. Died, 7. Total, 81. Remaining under treatment, 184.

Dr. Nichols treats briefly of the admissions, discharges and deaths. Among the important improvements made

during the year, is the completion of the "John C. Green Memorial Building," which has been also furnished for the reception of patients.

Thirteenth Report of the Hudson River State Hospital: 1879.
Dr. J. M. CLEVELAND.

There were in the Hospital, at date of last report, 232 patients. Admitted since, 128. Total, 360. Discharged recovered, 22. Improved, 18. Unimproved, 42. Died, 24. Total, 106. Remaining under treatment, 254.

Owing to a change in the law, making the fiscal year of the charitable institutions of the State terminate with September instead of November, the report covers a period of only ten months.

First Report of the Binghamton Asylum for the Insane: 1879.

This comprises the report of the Trustees, of the Medical Superintendent, and of the architect and building-superintendent. It consists of a record of the alterations and additions proposed and in progress, for adapting the building (formerly the State Inebriate Asylum) for the uses of the chronic insane.

PENNSYLVANIA:

Sixty-Third Report of the Asylum for the Relief of Persons Deprived of the Use of their Reason: 1879. Dr. JOHN C. HALL.

There were in the Asylum, at date of last report, 82 patients. Admitted since, 45. Total, 127. Discharged recovered, 13. Improved, 13. Unimproved, 5. Died, 6. Total, 37. Remaining under treatment, 90.

INDIANA:

Thirty-First Report of the Indiana Hospital for the Insane: Dr.
JOSEPH G. ROGERS.

There were in the Hospital, at date of last report, 614 patients. Admitted since, 615. Total, 1,229. Discharged recovered, 291. Improved, 125. Unimproved, 111. Not insane, 5. Died, 69. Total, 601. Remaining under treatment, 629.

This report forms a volume of 590 pages; 38 of which are occupied by the report of the Superintendent and Trustees; the remaining 552 pages, forms a statistical appendix, which seems to be a copy of the whole of the books of the Asylum in detail. After a long inventory of the property, an account is given of the articles of clothing owned by each patient in the house. Following the name of the patient is the date of admission, then a list of every article brought to the Hospital, and another list of the articles furnished during residence in the institution, thus: "James T. Knight, admitted March 13, 1879, 1 coat, 1 vest, 1 pair pants, 2 white shirts, 2 under-shirts, 2 pairs drawers, 2 collars, 2 pairs wool socks, 1 pair suspenders, 1 pair boots; furnished by Hospital, April, 1879, 1 pair slippers, \$1.50. Discharged, April 25, 1879. Clothing sent with patient." Patients are all classified by counties, (92). Two hundred and sixty-eight pages are filled with this "exhibit." Following this are two hundred and eighteen pages of itemized accounts, in which every individual voucher is reproduced. Among the sources of revenue would seem to be the sale of flowers and plants from the garden and greenhouse. These individual sales, numbering 263, are all tabulated, thus: "April 1, To A. Triesback, Flowers, by W. J. Elstrun; 5 cents." The detail of every sale is thus given, occupying several pages, with a total

amount during the year of \$234.55. These are samples of the whole report.

The first suggestion which occurs to one, on looking over this cumbrous document, is whether the information is worth the expense of printing, to say nothing of the labor of making it up. The only conceivable *profit* of such a useless document must accrue to the printer and paper dealers. Curiously enough, we are not informed of the cost in this direction. To a certain class of statisticians this may be a god-send. They can find the number of counties in the State, the actual names of each lunatic from the same, what clothes he had when he became insane, and what he received in his lunacy, and by summing up the whole can find the average of neck-ties, hats, paper collars, shawls, dresses, bonnets, stockings, &c., of Indiana lunatics.

This style of report is not actually new. Dickens, in his *Mudfog* papers, in the report of the proceedings of the Statistical Section of the "*Mudfog* association for the advancement of everything," gives a public document of similar value:

"Mr. Slug then stated some curious calculations respecting the dogs'-meat barrows of London. He found that the total number of small carts and barrows engaged in dispensing provision to the cats and dogs of the metropolis, was one thousand seven hundred and forty-three. The average number of skewers delivered daily with the provender, by each dogs'-meat cart or barrow, was thirty-six. Now, multiplying the number of skewers so delivered by the number of barrows, a total of sixty-two thousand seven hundred and forty-eight skewers daily would be obtained. Allowing that, of these sixty-two thousand seven hundred and forty-eight skewers, the odd two thousand seven hundred and forty-eight were accidentally devoured with the meat by the most voracious of the animals supplied, it followed that sixty thousand skewers per day, or the enormous number of twenty-one million nine hundred thousand skewers annually, were wasted in the kennels and dust-holes of London; which, if collected and warehoused, would, in

ten years' time, afford a mass of timber more than sufficient for the construction of a first-rate vessel of war, for the use of Her Majesty's navy, to be called 'The Royal Skewer,' and to become under that name the terror of all enemies of this island."

As we have said before, the report is but the reproduction in proof of the ordinary books and vouchers which are kept as the proper detail of business in every well-organized institution, and which are open at all times to the inspection and examination of the properly constituted State authorities.

NOVA SCOTIA:

Twenty-Second Report of the Nova Scotia Hospital for the Insane: 1879. Dr. A. P. REID.

There were in the Hospital, at date of last report, 362 patients. Admitted since, 74. Total, 436. Discharged recovered, 40. Improved, 13. Unimproved, 6. Died, 13. Total, 72. Remaining under treatment, 364.

NEW BRUNSWICK:

Report of the Provincial Lunatic Asylum: 1879. Dr. JAMES T. STEEVES.

There were in the Asylum, at date of last report, 297 patients. Admitted since, 95. Total, 392. Discharged recovered, 42. Improved, 12. Unimproved, 1. Died, 30. Total, 85. Remaining under treatment, 307.

BOOK REVIEWS AND NOTICES.

The Venereal Diseases ; Including Stricture of the Male Urethra.
By E. L. KEYES, A. M., M. D. New York: Wm. Wood & Co.
1880.

In the collection of volumes which Messrs. Wood & Co. have selected to comprise their "Medical Library," for 1880, the work by Dr. Keyes will take a prominent position. Already well known as the author, in connection with Dr. Van Buren, of an excellent work upon genito-urinary diseases, and as an experienced and practical syphilologist and dermatologist, a work from his pen will be received as in a large measure authoritative.

The work is divided into three parts—I, Chancroid; II, Syphilis; III, Gonorrhœa and its complications. About fifty pages are taken up by the first portion of the work, Chancroid he believes is as much a specific disease as vaccinia or syphilis. The ulcers produced by inoculation from a chancroid are distinct, and have well marked characteristics. They can not, he says, be produced by ordinary pus. In regard to the question of general specific infection following the inoculation of chancroidal virus his views are well pronounced. He says: "Chancroid upon a non-syphilitic patient is easy to communicate to any one, but in no such case, among millions observed, has the inoculation been followed by syphilis." He does not believe that true chancre is the starting-point of the general infection of syphilis, but that, on the contrary, it is the first manifest symptom of the disease, after a certain period of incubation. After making this statement it is natural that he should evince no faith in the excision of the chancre, and should warmly dispute the correctness of

Auspitz's cases. Concerning transmission, Dr. Keyes inclines to the opinion that a healthy mother will not bear a syphilitic child, in other words, that the father can not transmit syphilis to his offspring, except by first inoculating his wife.

The remarks on treatment are excellent, and a revision, largely, of what the author has said in his monograph on the treatment of syphilis, (New York, 1877). He advocates the use of mercury in "tonic doses." He commences with what he terms the standard dose, one-sixth of a grain of proto-iodide of mercury, in granules. The patient is directed to take one granule at each meal, on the fourth day adding one granule at the mid-day meal. On the succeeding fourth day another granule is added, the patient now taking two granules in the morning, one at noon and two at night. In this way the amount is gradually and regularly increased until the patient has come markedly under the influence of the drug, as evinced by mercurial fetor, slight tenderness of the teeth, pain in the bowels and diarrhœa. When this condition is reached, the patient is said to be taking his full dose. With proper precaution this full dose is continued until the activity of the symptoms decline, when the "tonic dose" is substituted. The "tonic dose" consists of one-half the full dose, this dose, or a slightly diminished amount, is kept up, with strict attention to food and general bodily hygiene, for from two to three years. When a return of active symptoms occurs, the full dose is again resorted to.

For the treatment of gonorrhœa, the directions laid down are explicit and well digested. Among the balsams Dr. Keyes prefers the oil of sandal wood. He dissents from the opinions of Otis, regarding the treatment of stricture, and says: "I have tested the new method quite extensively, and find myself inclined, by

experience, to be more and more conservative, and to cut less and less within the urethra any where beyond the first three-quarters of an inch from the meatus, except in desperate cases, believing that such cutting, on the whole, does more harm than good in a majority of instances." (Page 295). The wood cuts which are intended to illustrate the works, would, we think, have been better left out.

Surgery in the Pennsylvania Hospital. By Drs. THOMAS G. MORTON and WILLIAM HUNT, Surgeons to the Hospital. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton St., Covent Garden, 1880.

We have in this volume an epitome of the practice of the Pennsylvania Hospital since its opening in 1756, together with a more detailed account of surgical injuries and diseases, which have been treated from 1873, the year in which a more systematic method of note-taking was inaugurated, to 1878, inclusive. As surgeons to the oldest and most widely-known hospital in America, it was but fitting that the editors should take the initiative in our country, and, following the example of still older institutions abroad, thus utilize the endless store of clinical material which the wards of their hospital supply. And they have done their work so well that we hope to see their labor bring forth fruit in due season, in the shape of similar reports from other large hospitals throughout the country. Some of the articles have almost the completeness of monographs, and all of them contain information of interest and value to the practical surgeon. An idea of the rare opportunities for observation which the old hospital affords, may be had when we reflect that from 1842 to 1876, 37,272 surgical cases were admitted for treatment, and the fact that of this number but little over six and

a half per cent died, speaks volumes for the skill of the surgical staff, and the hygiene of the institution. A perfect immunity from pyæmia has been enjoyed during the past five years. Not the least interesting feature of the book, is a chronological list, prepared by Dr. M. Longstreth, of the medical officers of the hospital, since 1751, a table bristling with the names of distinguished men. The corner-stone of the present building, laid in 1755, bears the following quaint inscription by Benjamin Franklin:

“In the year of CHRIST
MDCCLV.,
GEORGE the Second happily Reigning
(for he sought the happiness of his people),
Philadelphia Flourishing
(for its inhabitants were public spirited),
This Building,
By the Bounty of the Government,
And of many private persons,
Was piously founded
For the Relief of the Sick and Miserable,
May the God of Mercies
Bless the undertaking.”

A Practical Treatise on Sea-Sickness: Its Symptoms, Nature and Treatment. By GEORGE M. BEARD, A. M., M. D., etc. New York: E. B. Treat, 1880.

Dr. Beard tells us that “the philosophy advocated in this work is that sea-sickness is a functional disease of the central nervous system.” Commencing with this statement he launches out into a roseate description of what will result in increasing international travel, when sea-sickness is abolished, producing, he says, “incalculable service to humanity, in ways innumerable, physiologically and therapeutically, as well as financially.”

The author seems to be on remarkably friendly terms with the world in general, and the medical and scientific portions of it in particular. All through his writings are scattered such terms as "my friend" Dr. Smith, Jones or Brown, as the case may be. In one portion of the book he speaks of his "scientific friends in Europe—in England, Germany and France," who are only deterred from visiting this country, by fear of sea-sickness. We think the publication of his book will not hasten their visit, nor add to their comfort should they attempt the voyage.

The work contains evidences of hasty writing, and several rather remarkable and inexplicable statements. For example, on page thirty-five, a case is cited in the treatment of which, for sea-sickness, in crossing the Channel, thirty grains of bromide of potassium was prescribed three times daily, for two days, before starting, to be continued "for two days (*sic*) after she got on board." The reader is relieved on learning that during this remarkably long voyage, (Capt. Webb swam across the Channel in twenty-three hours), the lady was, for the first time in her life, free from sea-sickness in crossing the Channel.

In regard to treatment he presents nothing new. His panacea seems to be the bromides. The assertion on page fifty-three that "hydrate of chloral is really a stronger bromide, being more of a narcotic, while the bromides are sedatives," will strike readers of the work as somewhat remarkable. Dr. Beard seems to have recently put his ideas into practice on board the *Germanic* in such a manner as to have called forth a sharp rebuke in the *British Medical Journal* for August 7th and September 18th, from the surgeon of the ship Dr. Fourness-Brice and two other physicians.

CORRESPONDENCE.

*Dr. G. M. Beard on Insanity.** [From our London Correspondent.]

This communication, from one of the most prolific American writers of the neurological class, would be expected to present arguments not destitute of force and practical knowledge. Contrary to such natural anticipation, the self-praise with which its author asserts the superiority of his own singular reasonings and inferences, in opposition to acknowledged principles of mental science, evinces anything but familiarity with the subject he assumes to elucidate, and not the least deference to our recognized authorities on psychological medicine. No exception is even made of his "personal friend" Dr. Maudsley, whose definition of insanity is pronounced "worthless." And, having said this, what is left to be said of the definitions of Tuke, Bucknill, and other writers? Yet, the necessity for a definition of insanity is so imperative, that, as declared by the London *Lancet*, and echoed by Dr. Beard, "it will be a red-letter day in the history of this subject, and inaugurate a new era in the study of lunacy, when we shall have a satisfactory definition of what insanity is." Happily, we have not to wait any longer for such an eventful day, or to deplore the shortcomings of our standard authors. The vexatious deficiency of science has been at last filled up by Dr. Beard, who proclaims to have conceived "the best definition of insanity that has ever been presented," and which he claims has the merit of going "into the brain by a single shot." Dr. Beard's definition is as follows: "*In-*

* A Reply to Criticisms on the Problems of Insanity, with Remarks on the Gosling Case. By George M. Beard, A. M., M. D.

sanity is a disease of the brain in which mental co-ordination is seriously impaired." This laconic description—and no more—is what Maudsley, Tuke, Bucknill, and their associates, as well as our judiciary, should in future bear in mind. Dr. Beard tells us that, at first, "he used the word responsibility instead of co-ordination. As responsibility is the result of co-ordination, and is really a legal rather than a medical word, it was, after more study rejected. Before a court the word *responsibility*, might very properly be substituted for the phrase mental co-ordination, inasmuch as responsibility is practically the only question which it is the offer of the court to decide." After all does not Dr. Beard completely overthrow himself when he says:

"If it be objected to this definition that it does not state precisely what insanity is, that it is somewhat vague and elastic, and that the words are ill-defined, and hard to be defined, the reply is obvious; that if this definition were an accurate statement of the real nature of insanity, if it were accurate as you profess you would like to have it, it would be of no use to us, and would therefore be the worst possible definition."

One of Dr. Beard's aims is to prevent, in insanity cases, the admission of expert evidence from physicians utterly ignorant on the subject of insanity. But, what would our legists and psychologists think of an expert who pretended to establish "serious impairment of mental co-ordination" as the best and truest proof of madness? Has the Lord Chief Justice of England, deceived us recently, in saying that which we regard as the highest triumph of mental science? "I concur most cordially in the proposed alteration of the law, having been always strongly of opinion that, as the pathology of insanity abundantly establishes, there are forms of mental disease in which, though the patient is quite aware he is about to do wrong, the will becomes over-

powered by the force of irresistible impulse." Probably assuming that we are ripe for the revolution, of which he proclaims himself the standard bearer, Dr. Beard let pass the opportunity to teach us the relation between responsibility and mental co-ordination, and how these two words, (the second of which he can not define), could become legally synonymous, or equivalent terms, when the power to do right constitutes responsibility, which depends altogether on conditions essentially related to the state of our will? Furthermore, if mental soundness has to be gauged only by the criterion of mental co-ordination, a large number of lunatics would have to be added to those already overcrowding our asylums. Dr. Beard says: "Insanity is a vague condition, and it must have a vague definition; it is a disease of gradations, and must have a definition that covers these gradations." Leaving aside the inconsistency of calling a definition of insanity vague, pronounced a moment before, the best that has ever been presented "because it is short, it includes all real cases of insanity, and it excludes all cases that are not insane," we would merely ask, for what reason must such a definition then be vague? Could any morbid condition display itself in a more distinct and positive manner than mania, melancholia, general paralysis, puerperal insanity, &c.? Does the indefinite border-line between sanity and insanity, health and sickness, or any two other antithetic states, prove, as argued by Dr. Beard, that either of them is vague? By what co-ordinate link of facts does he arrive at this conclusion?

Dr. Beard presents us with the most novel, and as it were, kaleidoscopic views of insanity. "Is a person in a prolonged stupor, cerebral hemorrhage, or injury, or other cause, insane? I answer, he certainly is." But

he considers that in stupor and trance insanity is masked by the stupor and the trance; and when they pass away in part, the insanity comes to the front—Again: “the severe and prolonged delirium of fever is insanity.” “Fever, indeed, like trance, like stupor, masks the symptoms of insanity, or, more strictly speaking, overshadows them, so that they seem, for the moment, of slight practical importance.” We must candidly confess our inability to seize these distinctions, even in the light of Dr. Beard’s new definition of insanity. If trance and stupor are insanity in any given case, how can this latter persist when the two former have disappeared? Then again, how is insanity in severe prolonged delirium with fever, masked or overshadowed by the fever; and, above all, if the delirium, contrary to what one would have thought, does not then constitute the whole mental disorder, where shall we find the insanity in such an incongruous series of ideas?

Only a general reference is made by Dr. Beard to the Gosling case. We agree with him that the practice of bringing instruments to illustrate to the court, in a case of suspected insanity, calls for nothing but condemnation, “as an unscientific procedure that has been the source of gigantic confusion and false reasoning, and prolongation and unsatisfactoriness of trials of this kind, particularly in the United States.” One important fact must not be granted in this statement of Dr. Beard, viz.: that such “gigantic confusion and false reasoning,” to befog a jury, has ever been attempted by, or claimed to have been the invention of any alienist in Europe, as implied by Dr. Beard’s words, “particularly in the United States.” Let us briefly notice that, to the mischievous influence of the self-styled experts in mental science, is chiefly due this, and most of the abuses that still keep rampant in the states, in spite of the protest-

ation raised against them by the members of the Association of Superintendents of American Lunatic Asylums. And, while it is obvious that the diagnosis of insanity must be made by the mental manifestations alone, or else it can not be made out, as stated by Dr. Beard, we can not, however, go the full length of his arguments to disregard physical symptoms as valuable signs of insanity, in its threatening or incipient stages. Nor is it borne out by clinical experience, that insanity, "in its most furious form, may exist with almost absolute health." Nothing confirms the value of physical signs, as above stated, better than the very case of incipient general paresis, without delusion of grandeur, and no severe depression, cited by Dr. Beard.

One statement, more surprising than any of those already pointed out, is that "native-born Americans are the most temperate people on the globe." He adds: "but at the same time there is no country in the world where, in proportion to the population, there is so much of the nervous disease, inebriety, as in America; and it prevails among those classes where there is the least drinking." Dr. Beard, in his research after new diseases, allows himself to be carried too far, when he intends to present inebriety as one of them, now regarded all the world over as the intoxication by liquors, or vice of drunkenness. The subject does not admit of discussion. Drink-craving, or dipsomania, may be the effect of an inherited neurotic predisposition, almost-always derived from intemperate parents; the intemperate habit may, like every other, be transmitted from parent to offspring, but such hereditary law presents nothing peculiar to the American race. It is scarcely necessary to observe further that, thanks to the researches of Morel, Hutcheson, Skae, Mitchell, Anstie and others, these cases have been properly

understood and classified, without need of now imagining—unless it be to exculpate the American drunkard belonging “to those classes where there is the least drinking”—the new nervous disease, *inebriety*, kindred to *neurasthenia*, and rendered no less fashionable by Dr. Beard’s writing.

Dr. Beard says, “the insane may be wholly irresponsible, partially irresponsible, be slightly irresponsible, or quite responsible for their acts.” He forgets, however, to give us, with this aphorism, the key for the distinction between the wholly, partially, and slightly irresponsible cases, and the responsible, which involves a corresponding degree of punishment.

“A purely intellectual life is one of the best antidotes to insanity,” in the opinion of Dr. Beard, who does not explain why then—as he subsequently asserts—insanity and nervous diseases should be “very rare, indeed, among savages and barbarians.” To this conclusion Dr. Beard claims to have arrived, upon thorough and long study of the customs of savages, and the diseases among them,” and adds: “It is proper that I should say that I have read hundreds of works of travelers among them, and have almost, if not quite, exhaustively canvassed all those facts in relation to all the nations of the earth, that shed light on the nervous system.” In proof of this exhaustiveness he says: “I did what I never did before, and would never do again; that is, gave a whole summer to the inquiry.” Why this so much searched for light should be more brilliant than that shed (we suppose, on the physiology or pathology of the nervous system) by the scientific investigations of our physiologists, is rather puzzling. At all events, notwithstanding such confident, thorough and exhaustive study, we point out to Dr. Beard the fact that nervous diseases and insanity

are far from uncommon among the Tartars and Samoydes, the Abyssinians, the Arabs, the Africans, and the savages of Oceanica, as described by Cochrane, Leighton Wilson, Rich and Launder, Bertherand, Brierre-de-Boismont, Maury, and other authors on travels, and by physicians, whose valuable and well known writings would seem to have escaped Dr. Beard's attention. The furious *imerachism*, and the hysterical fits of constant hiccup, with the fixed idea of being possessed by an evil spirit, exhibited by the Samoydes, as well as the notions of the Arabs, Abyssinians and Africans about epilepsy and insanity, have been subjects of study now familiar to alienists and anthropologists. We are, therefore, led to believe, after such a remarkable want of completeness in researches which he vouches to be "fully as extensive and trustworthy as those which Mr. Herbert Spencer has since made in his work on sociology," that Dr. Beard's estimation of the superiority of the savage, in his knowledge and treatment of insanity, need only to be stated to show his absurdity or his animus. Blind to the advancements of mental science, and to the manifest perfection of lunatic asylums throughout the civilized world, and particularly in his own country, must be the American physician who feels no embarrassment in saying: "Indeed, if I were suddenly taken insane, I would rather take my chance with many savage or barbarian tribes, with the water cure which they sometimes employ, if near rivers or other streams of water, than in many of the asylums of the civilized world."

Finally, from whatever standpoint we regard this attempt of Dr. Beard to elucidate the problems of insanity, we are forced to acknowledge that he completely fails; and that, while his style seems mainly directed to the lay reader, he is often wanting in that

moderate estimate of his own worth and importance which distinguishes men of learning. Should the scientific value of the paper have called for any praise or commendation, there would have been no occasion therefor, after the manner in which its author extols the excellence of his ideas. Nor could we seriously consider paradoxes, put forward by a fecund imagination, to elucidate problems of insanity that admit of no other solution than that derived from the practical results of sound experience. E.

NOTE.—In the pamphlet which our London correspondent has reviewed, I find on page thirty-two, the following: "By invitation of my friend Dr. Judson B. Andrews, of the Utica Asylum, I illustrated these methods on patients in that Asylum also, a number of years ago," referring to what he has said of the different methods of general faradization and general galvanization.

I feel it my duty as one of the editors of the JOURNAL, and a medical officer of the Asylum, to say that Dr. Beard never illustrated the use of a battery upon any patient in the Utica Asylum, at my request, or to my knowledge. A casual conversation of a few moments, in the office, upon the subject of electricity and its application, is the only ground he has for the assertion. Such looseness of statement should not appear in an article claiming scientific accuracy.—JUDSON B. ANDREWS.

Obliteration and Renewal of Brain Function.

Arrest and release, or re-assertion of a part of, if not all cerebral functions, is not infrequent—instances of the kind occur under the observation of every general practitioner. Suspensions of brain function, generally partial, are usually brief and alternating. Obliterations of mental function, and renewals of the same are rare phenomena.

The instance recorded in *The Brain*, for April, 1879, and copied in the JOURNAL, for July, 1880, is exceedingly interesting. In over thirty years' observation, I have seen but one case.

Miss ——— aged about 30, unmarried, of ordinary intelligence and common school education, in fair health, previous to attack, in the autumn of 1846, was seized with an intermittent, as I supposed, and took, by direction, three doses of sulph. quinine, of six grains each, at intervals of three hours. I found, on examination the following morning, my patient paralyzed on the right side, and unable to communicate. The next day, I discovered dry gangrene surrounding the great toenail of the left foot, and extending up the extremity. The gangrene progressed quite rapidly, until a line of separation marked its arrest at upper third of tibia, in front, but reaching only part way up the fleshy calf posteriorly. The woman's general health had begun to improve, without any apparent mental capacity, however, and I amputated the leg, by circular incision over tibia, and transfixing muscles in the rear—cutting down and out, to secure flap. My knife cut through a sack of pus under the belly of the muscles, but the muscles and integument appearing healthy, I dissected away the pus sack, and dressed. Healing took place kindly, and the woman in the course of a few weeks, became quite fleshy. The right paralysis disappeared gradually; but, on the re-appearance of mental activity it was discovered that the woman, so far as mental phenomena were concerned was a new-born creature. She had to learn everything *de novo*. She had no memory of previous existence or circumstances. She learned much more rapidly than an infant learns; but had everything to learn. I kept track of the case six years, but know nothing of subsequent history.

ORPHEUS EVERTS, M. D.,

AUGUST, 1880.

Cincinnati Sanitarium.

Editors American Journal of Insanity :

NEW YORK, 41 WEST TWENTIETH STREET.

DEAR SIRs:—Having been selected by the Paris Committee (Messrs. Ranvier and Dumontpallier) having charge of the subscription for a monument or memorial to the late Prof. Claude Bernard, to represent them in the United States, I beg leave to be allowed to use your columns for the purpose of appealing to the members of the medical profession, and all others interested, to subscribe to this worthy project. I need hardly remind your readers of the great debt which every practicing physician owes to the labors of the illustrious physiologist, whose memory we are asked to honor in this way. All inquiries and subscriptions, in the shape of bank-checks or postal money-order, should be addressed to me.

Trusting that I shall have the advantage of your active personal support in this matter, I remain,

Yours, very respectfully,

E. C. SEGUIN, M. D.

Editors American Journal of Insanity :

DEAR SIRs:—In the presence of and assisted by Drs. Dodge and West, in June last, I removed the brain of J. Perry Radford, of Oneida Castle, who is supposed to have been killed by a blow on the side of the head. The brain weighed fully sixty ounces, which seems to me worthy of record. The man was sixty years old; a shoemaker; had a remarkable memory and was altogether a brilliant man for one in his position.

Your obedient servant,

C. H. PERRY, M. D.

ONEIDA, N. Y.

SUMMARY.

—Dr. Calvin S. May has resigned the Superintendency of the State Lunatic Hospital at Danvers, Mass.

—Dr. H. F. Carriel was in July last re-elected Superintendent of the Central Illinois Hospital for the Insane, at the expiration of ten years of service in that Institution.

To Miss D. L. Dix, on Receiving a Letter, of which the Following is an Extract :

“DEAR DOCTOR GRAY:—I have sent you two large compound Kaleidoscopes, which I wish you to place in your convalescent wards, for the amusement of your patients.”

I.

How many eyes thy goodness see,
How many hearts thy goodness feel,
Yet, half the measure of thy love
This life to thee can not reveal.

II.

If doing all that strength can do,
If giving all that life can give,
Did measure half thy loving work
How many lives in thine would live !

III.

But half thy work is in the dark
To all but Him who sees the thought,
Who sees it stealing on the march,
To heal the fainting, breaking heart.

IV.

To write the story of Christ's love
On human hearts, in deeds like thine,
Seems like a mission from above,
And makes the human seem Divine.

V.

No greater work than this is done,
To do Christ's labor for the poor.
As He to thee example gave
So thou hast wrought it o'er and o'er.

VI.

In thy long years of loving work,
Wherever wretched find a place,
Asylum, Poor House, Prison,—all
Have heard thy footsteps, seen thy face.

VII.

Is a poor wanderer seeking home,
Or comes a weary broken mind?
Thy Angel standeth at the gate,
"Enter, our Father room will find."

VIII.

Wherever human minds are wrecked,
Wherever sorrow sits and weeps,
Thy name is heard in deeds of love,
Thy Angel constant vigil keeps.

JOHN P. GRAY.

STATE LUNATIC ASYLUM, Utica, N. Y.

AMERICAN JOURNAL OF INSANITY, FOR JANUARY, 1881.

BRAIN LESIONS AND FUNCTIONAL RESULTS.*

BY DANIEL CLARK, M. D.,

Medical Superintendent Asylum for Insane, Toronto;

Member of Medical Council, Ex-President of College of Physicians and
Surgeons, Ontario.

There is great danger in medical research to accept as theories preconceived notions based on a few isolated cases, and then to fortify these dubious interpretations of physical or mental phenomena by dragging in, neck and heels, every iota which seems to corroborate our views. On the other hand, the ardent but discreet investigator will adopt no great general principles until he has at his command sufficient data upon which to base them, beyond the bare presumption of vague probabilities. Richet, in his "Histology and Physiology of the Cerebral Convolutions," says in the preface: "There is nothing more baneful than to treat hypotheses as certainties. On the contrary, when serious criticism has revealed the defects and feebleness of an experiment, a real service has been rendered, for it may incite to new experiments and unequivocal conclusions. Inductions from probabilities or ill-demonstrated experiments are unreliable, and intelligent skepticism is more valuable to the advance of science than unbridled enthusiasm."

*Read before the Canada Medical Association, at Ottawa, September 1, 1880.

This honest expression of such an investigator should lead us to pause before drawing conclusions and establishing theories with insufficient proofs. It will be seen in the cases adduced of lesion of the brains that this organ can stand more rough treatment in many of its parts than almost any other organ of the body. In fact, such laceration of its delicate structures can take place without any serious mental or physical disturbance, that we almost unconsciously take for granted that many parts of it must be of secondary importance in the animal economy. It is true that a large majority of those injured in the brain are afterwards afflicted with such diseases as epilepsy, paralysis, head distress, loss of memory, and such like, yet it is remarkable how many examples of the most extensive lesions of the brain can be found with no such results. In a monograph published by me a short time ago I endeavored to show that localization of functional power resided only in the basal ganglia, and that the masses of cerebral substance above them were only depositories of nervous energy. If this opinion be based on a physiological fact, it would help to solve this enigma. It is well known by all medical readers that a sharp controversy had been carried on, and antagonistic opinions have been uttered by the leaders of thought in our profession on the functions of the convolutions of the brain. The brain has been mapped out with the accuracy of the streets of a city, and each district has been allotted its own work to do. Although no dividing line exists in the substance of the brain, yet the comparatively slender divisions of many of the sulci are made to be boundaries of functional energy in which great differences of operation exist. It is not the province of this paper to take up this subject in detail, but rather to show by the record of cases how foreign bodies and

disease can virtually destroy many of these so-called centers, without any commensurate functional disturbance such as might be expected if these parts were distinct organs; also to show that mentality is not interfered with in these cases to the extent which at one time we were led to believe. The psychical results would be a good nut for the "bumpologist" to crack, in these days of infidelity in the doctrines of Gall and Spurzheim. All anatomists know, that although the fissures of the brain in man maintain a certain degree of uniformity in direction and outline, yet the differences in detail are considerable. It will also be observed that these fissures do not make distinct divisions of the surface. The even continuity of the surface of every convolution by means of an isthmus, (so to speak), at the extremities and sides of each, indicate no striking dividing line between each of them. The dips in the grey matter lying underneath these fissures and in proximity to the white substance, show that a certain degree of uniformity in quantity of grey matter is present throughout the periphery of the brain. It is true that differences in cell formation are seen in the various layers of the cortical substance, but these cellular distinctions are found only in each layer. There is no physiological distinction found in the various convolutions distinct from one another to account for the varied functions in these so-called motor centers, as claimed by the Ferrier school. The uniformity of cell structure in the separate layers of the cortical substance is continuous, and nowhere bounded by the surface fissures and convolutions. In other words, all the convolutions are similar in structure, and were sections of each cut out from without, inwards, and submitted to the closest analysis, no microscopist could tell where to locate each part. All are as uniform as would be sections of the

cortical substance of the liver or kidney. If we compare the convolitional structures of the cerebrum with that of the cerebellum, it will be seen that they are constructed on the same plane. (Richet.) In the region where the distinctive giant cells exist, (i. e., in the five layer type of the ascending frontal and parietal convolutions), all the cortical regions of grey matter have no distinctive anatomical characteristics except the presence of giant cells. Charcot suggests that all the different sized cells may be of the same kind in different degrees of development. In this way he thinks it possible that even motor centers may change their centers. This is a convenient theory to account for the fact that such an attack as aphasia often passes away, although its so-called motor center remains impaired.

This want of dividing lines on the external surface of the brain is, on physiological grounds, a momentous objection to distinct centers in the cortical substance. Let us now consider this subject from another point of view. Fritsch, Hitzig, and other experimenters agree that in no appreciable degree do mechanical or chemical agents excite motion in the cerebral substance. Excitement by galvanism is said to be very feeble, and very limited in either the cerebrum or cerebellum, and this want of response is seen throughout. It is evident that in this way—powerful as the agent is—no functional center could be found on the surface. Herrman shows that even after the grey matter is destroyed by chemical cauteries, a very feeble current of galvanism applied to this surface produced a slight movement, and significantly adds that in cutting away slices from the brain, the effect was more decided in proportion as the *central regions were approached*. (Richet.) In other words, the focus of nerve energy seemed to be in the ganglia at the base of the brain, and that the destruction of the

cerebral substance did not produce that disturbance of the system commensurate with the loss of substance, once supposed to be so necessary to the continuance of physical life and mental action. Richet says, in speaking of the localization theory as propounded by Ferrier and his ardent followers, that "absolute, inflexible localization of the motor zones is impossible. There are zones which encroach upon each other, but none of these zones have limits of determined, rigorous constancy. The best proof of this is the difference existing among authors." If this means anything, it is that although paralysis and abnormal functions of the brain in many instances follow the destruction of certain cortical parts or are the results of disease, and although a certain degree of uniformity in physical results follows, yet it is equally true that these same areas may be destroyed without any such manifestations following. Their own experiments are taken as proof of this fact. These circumscribed areas can not therefore by any show of reasoning be *the* organs, which are the centers of distinct functional activity. These local changes may affect the co-ordinating and mental powers, but the centers of these activities must be sought for elsewhere. To reconcile these undoubted variations in results and possibly arrive at the truth, let it be assumed that the basal ganglia are the centers of these functions. Let it also be assumed that the cerebrum and cerebellum are not directors of motion, but only *conservators* of nerve energy, both receptive and functional. Let us say that these ganglia are focal centers to all the nerve tracts of the system. Whatever nerve injury may do in other parts of the nerve mass within the skull, without dangerous results, it is evident by experiments and the results of disease that no serious impairment can take place in all or any part of these ganglia without dis-

aster; hence their supreme importance. In fact, this focus of influence might be called the metropolis of life. Maudsley, in "The Pathology of Insanity," says: "The disturbance of the cortical cells is in reality secondary; it is a reflex functional result of the primary morbid action that is going on in the neighborhood." And again: "Portions of the hemispheres may be cut away without the patient feeling it, though he is fully conscious." Ferrier locates the motor center of the opposite upper limbs in the upper part of the *ascending frontal convolution*; in the *first frontal convolution* the movements of the head; in the *second* or *center convolution* the motive power of the facial movements; and in the *third convolution* the center of the movement of the tongue and lips in monkeys, and the center of the faculty of articulate speech in man. This is often called "Broca's Convolution." In the *superior parietal* lobe is located the center for the movements of the lower limbs. The *gyrus angularis* is said to possess some influence over sight. Dr. Laffont, in a paper read before the Paris Anatomical Society of last year, states "that the center which controls the circulation of the abdominal viscera is in the floor of the fourth ventricle, because local irritation of this part produces unusual activity in the blood movement of the liver and intra-abdominal organs." Other investigators, equally credible, say that the grey substance of the fourth ventricle is the motor center of respiration. The occipital lobes the centers of vision. Aphasia, or the loss of ideo-motor coördination, is circumscribed by some to disease or injury of the posterior part of the third left frontal convolution. In passing, it may be said, that Ferrier still farther divides his functional foci, and puts "subjective auditive sensation" in the first temporal convolution, and "subjective olfactory sensation" in the cornua ammonis. In short,

it may be said that in cerebral localization, the encephalon does not represent a homogeneous organ, an unit, but rather an association, or a confederation, composed of a certain number of diverse organs. To each of these organs belong distinct physiological properties, functions and faculties. (Charcot.) It is well to keep these views in mind and see if they are corroborated by facts. It is to be remembered that there is no direct nervous communication with the body from the cerebrum and cerebellum except through the basal ganglia, notwithstanding statements to the contrary. Whatever injury, disease or traumatic lesion may inflict on these upper nerve masses with comparative impunity, analogous injury from the same causes can not be inflicted on the central or base organs without dangerous results. In other words, these are the true motor and sensory centers of the system, and there is no necessity of going beyond them to prove a localization theory. The distinction between these by well defined boundaries, and the want of uniformity in structure, point strongly to distinct functions. The outshoots of the spinal cord and the numerous nerve ramifications not only to the organs of special sense, but also to the locomotive and organic systems, point out these districts as being the peculiar focal points of functional and psychical life. If this theory be correct, it can explain all the phenomena manifested by experiments made, and pathological conditions found, on the cortical substance, without resorting to the chart made out from such shifting, incomplete and changeable boundaries as the sulci of the convolutions afford. The "bumpologist" conveniently locates all mental centers in the cortical substance nearest to his manipulations, and ignores all the similar surfaces at the base and between the hemispheres, because this *terra incognita* is not convenient to map out. He can

not reach these parts. Therefore they must be useless appendages. He forgets nature has no lumber room. In somewhat the same way, the Ferrier school of investigators find certain functional disturbances following the abrasion, excision, or galvinism of definite cortical parts with a considerable degree of uniformity. Based on these manifestations already, with considerable confidence, it is said nearly all the functions of the body are located on the exterior part of the nerve mass, which is within reach of experiment, and somewhat hasty conclusions are drawn from the results. All the rest of the brain mass which has a substance exactly similar in structure to the external grey matter, is practically ignored, in spite of its paramount importance, and which is also evident from the complexity of the structure, and from the fatal results which flow from injury to these central parts. It seems to be overlooked that any injury to the cortical substance must necessarily affect the lower ganglia to which it lies in juxtaposition, and to which it stands so nearly related. The periphery of the brain doubtless has much to do in stimulating to action these centers. In the latter are found the distinctive seats of functional activity, and in the superimposed mass the residuary power to impel but not to direct—to give additional vitality, but not to indicate the mode and direction this force is to take. This discriminative power is left to be performed by these central glands, which are safely situated in the center of these sympathetic and active auxiliaries. Not only is this true in respect to function, but it is equally true as respects sensation. Sensation and function have a community of interests, and are *focalized* together. Dr. Symonds, in the Gulstonian lectures, says: "Pain does not seem to be in the nervous matter, whether vesicular or tubular, of the cerebral hemispheres, or of the cer-

ebellum. No evidence of feeling has been obtained by vivisectors till they approached the sensory ganglia—the *thalami optica* and *corpora quadrigemina*. But these are the centers of sensation to all parts of the body as well as to the head.” It is satisfactory to see that recent investigators are paying more attention to the central organs. Their researches go to show that very important functions are likely to be found having their excito-motor centers in the internal parts of the brain. These experiments—as far as they go—point to the probabilities of my theory of localization. Richet, in speaking of cerebral incitation by means of electricity, is forced to say in explanation of certain phenomena: “Known facts demonstrate that excitation of the convolutions which surround the sigmoid gyrus act with extreme energy upon the ganglionic centers of the brain, (opto-striated bodies). It is possible that such excitation culminated in the cerebral centers, and that these centers, thus surcharged, discharge to the muscles.” Charcot says, in speaking of the lenticular nucleus of the *corpus striatum*, “these grey nuclei are possibly so many centers endowed with distinct properties and functions.” This is a germ idea of the theory I propounded several years ago, in the following words: “Large portions of the cerebrum and cerebellum may be taken away from the living body without immediate danger of death, but the organs in the base of the brain, from which spring the numerous nerves so essential to life, can not be touched in vivisection or by disease with impunity. From this central region nerve influence radiates to every part of the body, making its connections with the depositories of nerve power in the spinal cord, and with the ganglia of the sympathetic system.” (*Vide* “An Animated Molecule,” p. 28). The experiments of Lussana and Lemoigne go to show that the

foci of various special movements were found about the base of the encephalon, pons, medulla oblongata and other parts. The considerable amount of lesion often discovered at the floor of the fourth ventricle in general paralysis, and the degeneration of cerebral and spinal nerves, warn us against too ready an indictment of motor centers in the cerebral cortex, as answerable for the frequent and characteristic motor impairment; that of the lips, tongue, face and articulatory organs generally. (Mickle, *General Paralysis*, ed. 1880). If Charcot had added to his hypotheses the probability that the base and central ganglia were the true and only motor centers, a solution of the difficulties which surround the Ferrier system could be arrived at without ignoring the doctrines of localization. Let the area be circumscribed to really the most vital parts of the brain, then could all the phenomena be explained. It would then become more evident why traumatic injury and destruction from pathological processes on the surface are not always followed by functional and mental unsoundness. If this explanation be accepted it will be seen that the surfaces and upper portions of these nervous masses thus become adjuncts to vital organs in the center and base of the brain. The former, in their analogy of structures and juxtaposition, give power but do not impart function; they are auxiliaries but not necessities to the ganglionic centers; they intensify energy but do not direct; they are—as it were—additional cells to the battery, but are not its controlling agency. I repeat this view in another form to avoid ambiguity and misconstruction. It is worthy of remark in this connection, as it is a matter of experiment, that such a large area as the Rolandic zone can be destroyed, and yet leave the intelligence unimpaired. A considerable portion of the frontal or even of the occipital lobes can be removed without any

apparent alteration of the intellectual powers. The corresponding lobes of either the frontal, occipital, or parietal regions have been destroyed without affecting the conscious being, or those functions said to have their seat of power in these parts. It is evident, then, that these are not the *sole* habitations of mind or certain physical operations. The reciprocity between mind and body is strikingly seen in aphasia. There can be no aphasia without more or less impairment of the memory, judgment and imagination, yet this functional and mental disorder can exist either with or without injury to the third frontal convolution. What basis, then, is there to suppose it so necessary to certain physical operations? If it could be shown that sight, hearing, tasting, often were accomplished when the optic and auditory and gustatory nerves and the region of their insertion were destroyed, then it would be plain that these were not the only tracts of nerve influence for these centers of special sense to reside in, nor the avenues of each peculiar manifestations of sensation. In the same way, if we can have aphasia, paralysis of the legs, arms and face with these so-called centers of nerve force unimpaired, or if impaired without these results, then it is beyond controversy that this doctrine of the cortical localization of specific functional energy is not proven. What may be in store in the future for these earnest and honest workers is only matter of conjecture. Richet pertinently says, (page 115): "If the crucial furrow is really the motor center of the legs, then by removing both right and left convolutions the legs should become paralyzed; if not, then it is not a true motor center. It would then be necessary to admit that there are several organs for one function, several motor centers for one limb, which is contrary to probability and to fact." He suggests as a way out of the

difficulty that as the spinal cord conduction, (according to Vulpian), is carried on equally by all parts of the grey matter, it is possible that the same indifference holds for the brain, though less in degree. In other words, *there are habitual roads, but no compulsory ones.* This view would be—if true—a death blow to the organic local theory, as applied to the cortex. This theory would not meet Ferrier's definition of localization, which is said by him to be "a complex arrangement of individually differentiated centers, which in associated action, regulate the various muscular adjustments necessary to maintain equilibrium of the body."

It will be seen that so far the greatest interest centers round the third left frontal convolution on account of the stress laid on the fact that aphasia is so often found as a result of its injured or diseased condition. If it can be proved that this imperfection of speech is always conjoined with an impaired condition of this locality and *never otherwise*, then is the battle won for localization of functional power in the cortical substance, for it would be fair to infer that other centers for other functions would be found in similar parts of the same field of investigation. Unfortunately for this doctrine, the exceptions to these results are too many to be ignored, and these show that this spot is not the center of speech, nor its injury the sole cause of aphasia. It has been found in numbers of examples that aphasia is found with this convolution intact. Not only this, but it is known that defects in speech in its different forms of language such as writing, reading, singing, drawing and imitation—in fact aphasia in all its forms follow lesion in the island of Reil. (*London Lancet*, Amer. Ed., July, 1880, p. 34.) Aphasia is known to exist as the result of disease in the right hemisphere, and that not in the corresponding third frontal of the hemisphere. It can not

be supposed this reputed motive brain tissue which excites the functions of speech may be destroyed and yet the peculiar energy which animates it can remain unabated after its obliteration has taken place, unless it is claimed that the corresponding convolution on the right, in a vicarious way, does the work of its fellow. If such were the case, then the third left frontal convolution could claim no pre-eminence, as the sole seat of the faculty of articulate language. To get over this difficulty this school of thinkers introduce what is called *the theory of supplementation*. They say some other part of the cortical substance comes to the rescue when any center of function is destroyed. This neighborly assumption of peculiar and distinct labor is not found in any other part of the system, however willing the organs may be to give a helping hand to one another. We are told it may be the corresponding part or some other cortical area. This is virtually a giving up of the doctrine of these so-called "true motor centers." Here let me say, in passing, that fallacy in vivisection often arises in forgetting that experiments on the brains of inferior beings by the destruction of parts, do not always produce analogous effects on man when corresponding parts are injured. We may remove the whole of a cerebral hemisphere of a pigeon or rabbit, with the only functional result of a slight impairment in flying or jumping. No hemiplegia will follow such as is the case with like injury to the dog or monkey. Man is much more sensitive to such lesions only in certain parts. In fact, the whole brain may be removed in many creatures without affecting their locomotion. We know that in man, disease, such as sclerosis and softening, may cut off the spinal cord from cerebral influence, yet functional activity in the parts supplied by it still goes on with unabated vigor. In the same way, we find that if the base and

central organs remain unimpaired, no marked symptoms arise except by sympathetic connections with adjacent parts. This shows the fallacy of reasoning by analogy between man and animals based on experiments. There are common results and also great differences.

It is now important to say a few words about the circulation of blood in the brain, to show how much more plentifully the center and base are supplied with blood than are the superior parts of the cerebrum and cerebellum. *It is not to be forgotten that where the largest supply of blood is needed for nutrition, there is found the greatest functional activity.* We are all well acquainted with the wonderful distribution and anastomoses of the blood in the base of the brain, both in the circle of Willis and in the cerebral arteries springing from this polygon of vessels. We are also aware of the fact that two sets of branches shoot from these main trunks in almost parallel lines. The one class goes into the medullary and cortical substance in an outward direction from those central reservoirs, but does not reach the surface; another class runs to the periphery and forms the *pia mater*, from which branch inwards numerous arterioles to supply the cortical and medullary parts not reached by the vessels springing from the center. These two sources of supply are not only distinct as between each of their own vessels, but also unconnected to a great extent with one another. The anastomosis between these two sets of vessels is very slight indeed. The streamlets in each can be dried up or seriously interrupted in many ways without disturbing the neighboring vessels to any appreciable degree. This accounts for so many circumscribed lesions in these parts, and for the little effect they produce in the adjacent tissues and circulation. I am inclined to think that on account of this localization of circulation and consequently a tendency to restricted

areas of disease, a good many fallacies of reasoning have obtained currency in respect to centers of function. Heubner cites pathological cases, which indicate that obliteration of one of the large vessels of the cortical system, or any of its branches, have during life given no pronounced symptom. (Charcot).

Let us now turn to the arterial circulation in the *grey central ganglia*. This section includes the *thalami optici*, the *corpora striata*, and their appendages. It needs only a moment's reflection of our anatomy to realize that the central ganglia are largely supplied from the Sylvian artery; as well as from the nutrient vessels, which spring in large numbers from all the cerebral arteries and from the basilar at its bifurcation. The sum total of all these, show a much greater capacity for blood supply per square inch, than in any other part of the brain. Such being the case, we know this augmented normal supply means proportionally increased activity. Hence it follows as a matter of fact that any abnormal increase or decrease of blood means a greater or less physical or mental perturbation. Congestion, as well as anæmia, is followed by the same results, that is, more or less suspended sensibility and retarded voluntary action. Where the blood supply is found to be naturally the most copious, there is greater susceptibility of this kind, and as a corollary it may be added, there is functional activity in proportion to the normal blood supply. The difference in this respect between the cortical substance and the central parts is most marked. This points to the former as being only subsidiary to the latter, taking the circulation as a physiological basis to judge from in this respect. Although the central and basal ganglia are much less in bulk than is the cortical substance, yet about one-half of the blood which enters the encephalon is distributed to the

former. It would be interesting to know if this unequal supply has anything to do with the pathological fact that in hemiplegia from cortical disease we find it "limited, transient, and variable," (Charcot), but in paralysis of the body from central disease it is permanent, general, and uniform. It is a pathological fact that paralysis, general or partial, can be produced by *any part* of the brain being affected with inflammation, embolus, or tumor, showing that loss of function is not consequent on degeneration or destruction of some localized spot. That part of the brain which demands the greatest amount of blood in the performance of its work must necessarily have the greatest activity. Let me then repeat, in another form, that a very superficial knowledge of the brain circulation indicates how direct and ample is the blood supply to the base and central ganglia in comparison with the cortical supply. This is especially true of the arteries which run to the *corpus striatum* and *thalamus opticus*. The cortical substance is nourished in a roundabout way through the *pia mater*, but the central system is reached directly through the large central vessels springing from the circle of Willis, which furnishes a perfect fountain of blood supply near at hand. So distinct and important is the circulation in this grand center, that when obliteration of the Sylvian artery takes place, all the ganglionic centers are affected, and cerebral hemiplegia, accompanied by hemianæsthesia is the result. This physiological fact alone, shows the greater importance these ganglia hold—it seems to me—as functional centers in comparison to the cortex or even the entire hemispheres. Since writing the above I find that Professor M. Schiff, of Florence, has caught the same idea, when he says in his monograph on "Motor Centers" that "human and comparative pathology have stated with

certainly that the motor centers do not extend above the base of the brain." Unless my attempt to be brief has led to ambiguity, it will be seen that among the probabilities of this obscure subject the explanations I have given in defense of the theory enunciated are based on—

I. The radical difference found in the circulation of the blood, both as to mode of distribution and quantity, leading to the reasonable inference of greater functional activity existing in the center than in the circumference of the brain. The more life-action in any part the more is blood supply needed.

II. The want of uniformity in functional results, when definite and alike portions of the cortical substance are stimulated, impaired or destroyed, hence this can not be the seat of so-called motor centers.

III. It would be consonant with pathological and experimental facts to locate these motor and psychical centers in the base and center ganglia, yet in sympathetic relations, being influenced but not absolutely controlled by the cortical substance.

IV. The want of distinctive physiological features in the different convolutions.

I will now give a few examples of brain injury, illustrative of these views. The first are culled from the surgical records of the War of the Rebellion.

Private Hughes, was wounded at the battle of Antietam. The Hospital Reports say that the injury was a perforation of the skull by a single conical musket ball entering near the inner posterior angle of the right parietal and emerging at a higher point of the left parietal, making, after traversing a portion of the brain, a large exit wound. At the time of this extensive injury he dragged himself from the field, but *he did not lose his consciousness*. Eight days after the injury it is reported the general condition of the patient was good; suppuration had commenced; no febrile action existed, the pulse was regular; sleep not materially disturbed,

mind clear, and manifested no signs of compression of the brain, or inflammation of its membranes. When the swelling of the scalp subsided, a prominence of brain substance was found, one inch in height and three inches in length, in which the pulsation of the arteries could be distinctly observed; *spiculæ* of bone came away from time to time, and the tumor subsided within the cranium. On December 20th, 1870, or over eight years after the injury, he was examined by two medical men. Previous to this time he had worked in an iron foundry. His memory remained quite good. He had no paralysis, and it is reported by Drs. Keen and Thomson that it is remarkable to observe the almost entire restoration of his mental faculties, especially in view of the probable deep lesion of the brain, both by the primary injury and the subsequent *fungus cerebri*.

It will be seen that in this case there was no functional disorder, except that for a short time at first "the brain functions seem clouded." This might be expected for a time.

Private Sheridan, was shot through the left temporal region. The missile lodged in the brain, and was never extracted. At the close of the war he was discharged recovered, and received no pension. No functional disturbance at any time.

Corporal Farrium, wounded by a round ball entering the cranium and brain matter. He recovered and was put in the Veteran Reserve Corps. He was not pensioned. He was none the worse for the wound at any time.

Private Dillon, was wounded by a bullet which entered the cranium very near the superior angle of the occipital bone, and had passed anteriorly into the substance of the brain. He lay on the field of battle two days without any attention. After being a year invalided he returned to active service, perfectly well physically, but with the intellect slightly impaired. Afterwards he was mustered out the service, perfectly well, and was not pensioned. The ball was not extracted. After the first shock there was no functional disturbance.

Private Bemis, wounded by a ball entering a little outside the left protuberance, and passing backwards and outwards. It removed a piece of the squamous portion of the temporal bone, with

brain substance and membranes. When the patient entered the Hospital, brain matter was oozing from the wound. At first respiration was slow; pulse 40; the right side was paralyzed and there was total insensibility. Three days after the injury the bullet was extracted from the substance of the left hemisphere. It was a conoidal ball, and badly shattered. He then rapidly recovered, and the report says that in four months and a half afterwards "the mental and sensory faculties were unimpaired." On October 30th, 1870, he wrote: "I am still in the land of the living. My health is good, considering what I passed through. My head aches some of the time. I am married and have one child. My memory is affected, and I can not hear as well as I could before I was wounded."

These were the only results of this extensive laceration of brain matter. The slight functional disturbance did not correspond with the doctrine of cortical functional centers.

Sergeant Rotherham, wounded at Gettysburg by a musket ball, which penetrated the skull near the right frontal eminence, passed directly inwards and lodged somewhere on the membranes or in the brain substance. The opening through the bone was similar to that made by a trephine, and the track of the ball could be followed on the *dura mater* with a probe for a considerable distance, as that membrane was detached from its natural connections with the skull. The ball was not extracted. There was no perceptible loss of power, motion or sensation on either side of the body. There was no arterial excitement. His recovery was rapid, and five weeks after the injury he was furloughed for fifteen days, at the expiration of which time he returned to duty, having suffered no inconvenience from the journey. After this several bones exfoliated, but his mind was not impaired to any perceptible degree. For some time after the wound was received he was assigned light duty in the Veteran Reserve Corps Hospital.

Lieutenant Brown, at the battle of Wilson Creek, received a penetrating gunshot wound of the cranium and brain. The ball was not removed for seven years after the injury, but in a few days after being wounded he was fit for duty. In January, 1871, this officer was on duty as Captain in the 13th Infantry.

Private Stallman, wounded at Winchester by a musket ball, which entered at the right temple and emerged at the opposite

side of the head. In spite of this serious lesion of brain, in a few months he was put on light duty. He had no strabismus, and we are told that although his mental faculties were slow and uncertain, and his memory impaired, he had no mental hallucinations nor mental aberrations. The year following the injury he was pensioned. No functional impairment except the above-mentioned.

Private Haggart, was wounded by a conoidal musket ball, which struck the left side of the head, and passing through carried away a large part of the left half of the occipital bone. At first he became insensible and lost more than an ounce of cerebrum, leaving bare the meningeal artery. Seven months afterwards he was discharged from the Hospital. At that time both eyes were dilated, causing dimness of vision, but his intellect was good, and he could read very coarse print. He died four years afterwards, but it is not recorded what was the cause of death. This extensive lesion only produced these slight results.

Sergeant Woodman, was wounded by a gunshot missile, which entered above the left frontal eminence and emerged at a point one inch behind the upper margin of the right ear. He was unconscious for several hours. At the wound of exit eight small bones afterwards discharged. He was alive three years afterwards, and it was reported that the organs of special sense and the intellect were unimpaired.

Private Plumly, was wounded by a conoidal musket ball, which entered at the inner angle of the left eye and after passing through the brain substance it emerged behind the left ear. On March 7th, 1867, nearly three years after the wound was inflicted, he was in good health and a pensioner. The only physical results were obscuration of the vision of the left eye for a short time, the discharge of pus from the orifice of entrance of the ball and through the right nostril and upper part of the posterior nasal cavity into the mouth.

Private Sechler, was wounded by a conoidal ball, which struck the *os frontis* over the right eye and passed into the brain. He not only lived, but returned to duty six months afterwards, and was at the close of the war mustered out, so well that he did not even receive a pension. The ball was not extracted. No functional results.

Private Samuel D. Solomon, was wounded at Bull Run, August 27th, 1862, by a carbine ball, which struck at a point two inches

behind the tip of the left ear. The missile entered the brain to the extent of two inches, and was not extracted. When struck he fell to the ground, but retained his consciousness. Healthy supuration followed, and a fragment of bone was discharged from the wound. He suffered headache, and also from acute darting pains across the base of the brain, from the right temple to the scar of the wound. No paralysis existed, and the functions of the body were generally well performed. He afterwards served in a Washington Hospital in the capacity of nurse, and was discharged from the service in the subsequent year, with no record of mental unsoundness or functional disability.

Corporal Wood, wounded at the battle of Winchester by a conoidal ball, which fractured the occipital bone and entered the brain. This was September 19th, 1864. He was examined by a Confederate Board on March 24th, 1865, whose members recommended that he might be employed at some post where the duties were not laborious, showing that his mental faculties could not have been impaired to an appreciable degree. No functional results were seen.

Private Sheridan, was wounded at the siege of Vicksburg by a canister shot. The missile entered the left parietal bone, immediately posterior to the coronal, and three inches from the sagittal suture, passed horizontally inward, a distance of two and a half inches, and lodged. The ball could not be extracted. He suffered but little inconvenience. The wound suppurated freely, sometimes bled, and small fragments of bone escaped. Six months after he was placed to work on the levee, and experienced no trouble except on the approach of a storm, when he had a dull pain and sensation of weight. In eight months after the wound was received he returned to duty.

Lieutenant Lilycrantz, wounded at Fort Pulaski. The ball perforated the *os frontis* over the right superciliary ridge. When first seen after the injury he was vomiting freely, and about a fluid ounce of brain matter had exuded from the wound. A probe, five inches long, glided easily, by its own weight, its full length, directly backwards through the wound, without coming in contact with the ball. For ten days the patient showed a tendency to sleep, but was easily aroused and would converse freely, constantly wandering, however, from the topic of conversation. He could, at this time, neither taste nor smell, and his hearing and sight were

much impaired. He recovered his mental faculties to such an extent as to be employed in government service at Washington, and died five years afterwards. During this time he articulated distinctly, had no paralysis, but had occasionally slight attacks of epilepsy, but they were becoming slighter as time wore on.

I have culled these cases out of 559 persons who received penetrating or perforating fractures of the skull. These 559 were selected out of 4,350 cases of gunshot wounds of the cranium and its contents. Of that large number, many were afflicted with functional and mental disturbance, but in no two cases of similarly injured, were there like results.

Dr. Van Peyma gives a record of a singular case in the *Buffalo Medical and Surgical Journal*, December, 1873.

A man aged 50 was found comatose, and brought to the Buffalo General Hospital. He subsequently was sufficiently roused to give his name and age. He died six days after admission. On *post mortem* examination the meninges on the right side were found considerably congested. On removing the brain a collection of pus was found at its base, extending from the medulla oblongata forwards. The lateral ventricles were also found filled with a purulent collection. At this moment, as the incisions were being extended, something was heard to fall on the tray on which the brain was lying. To our utter amazement this was found to be a bullet. The ball, which was of small size and considerably flattened, had been liberated by the knife. The conviction was forced upon us, (says the surgeon,) that the external opening through which the ball had passed had been overlooked during the life of the patient, and that this was the real cause of death. But our astonishment was increased when, after a careful examination of the surface, no opening could be found. As a last resort, the cranium was examined from the interior, and on the anterior surface, above and a little to the right of the left orbit, was found a fracture of the frontal bone, the internal table of which was extensively fissured. With this as a guide, we again made search for the external aperture, and again failed in finding an opening, but finding a discoloration of the skin over the seat of the fracture, of a lead color, circular in shape, and the size of a ball. There was not the least sign of a

wound, or the slightest scar. The wound, which must have existed, had healed perfectly, and left nothing but this leaden discoloration to show its former presence. The course of the ball through the brain could still be traced by a probe to the place where it had lodged near the anterior surface of the medulla. The opening in the bone was filled in with a gelatinous material through which a tenaculum passed readily. There was no previous history of the case, but it was evident that the wound had been inflicted a considerable time before death, and seeing the patient had not found refuge in a poor-house, hospital, or asylum, the inference is fair that the intellect had not been much impaired, if any, up to the fatal attack. I am the more ready to think so, from the immunity enjoyed by patients similarly afflicted. There could not have been serious functional results, as he had been able to look after himself. The probabilities are there were no physical results.

A somewhat analogous case is recorded by Dr. Prewitt, of the City Hospital, St. Louis, (*St. Louis Medical and Surgical Journal*).

A man aged 32 shot himself with a pistol. The ball entered the forehead about an inch and a half above the supra-orbital ridge. He recovered in a little over a month, and *without marked impairment of intellect*. He died eleven months afterwards from erysipelas. No functional impairment is mentioned.

Assistant Surgeon P. F. Harvey, U. S. A., reports the following case, (*vide American Journal of the Medical Sciences*, July, 1879). It is that of an Indian Agency physician, who received a Winchester rifle ball three inches and a quarter above, and one inch behind the right external auditory meatus. The missile took a transverse direction, across both hemispheres, toward the left supra-orbital convolution. A grooved director was easily passed in this track, a distance of five inches, without, however, reaching the ball. The patient did not lose consciousness on being wounded, and complained only of "seeing stars," and of some confusion of ideas. He recovered so rapidly that after five days of convalescence he took a journey of ninety miles, in

December, in an open buggy, alighting several times to make his way on foot through deep snow drifts. At the end of this exertion, however, two convulsions occurred, and the wound in the head re-opened. In a short time complete convalescence ensued. Six months after the wounding, the patient traveled across the plains to his home in Indianapolis, and on his arrival reported himself in excellent condition.

Dr. Hopwood, of Ashton-under-Lyme District Infirmary, England, gives, in the *London Lancet*, an account of a case under his care last summer.

A male patient, aged 28, was engaged in removing the center support of the arch of a brick kiln, and before he could get out of the way the arch fell, burying him and several others in the ruins. All the bones of the face were crushed in, and among other injuries the coronoid process of the lower jaw was broken off, and there was a depressed fracture of the temporal bone, just above the zygoma, from which the brain protruded to about the size of a strawberry. The coronoid process of the lower jaw, and the zygoma, were removed, the protruding brain matter was shaved off, and the temporal bone elevated. Temperature at this time was 99° Fahrenheit; pulse 62. The patient was perfectly sensible when brought to the Infirmary, and thought he was only slightly hurt. There was no shock, nor had there been any. The pupils were perfectly regular and there was no paralysis. There was no mental disturbance at any time, and ten days after the injury he said "he felt as well as ever he did in his life." The injury was inflicted on 30th July, 1879, and on October 14th, following, he was quite well and working regularly.

John MacEvoy, of Paterson, N. J., a lad of fifteen years of age, was gathering saw-dust in a saw-mill, last December. He had crawled under a circular saw, going at a speed of 2,500 revolutions a minute. The saw was twelve inches in diameter and nine inches of this was under the table. Becoming startled by a noise the boy suddenly raised his head, bringing it in contact with the saw. The saw had made a clean sweep from

the upper part of the frontal bone to the right side of the nose. The right upper eyelid was completely severed, but the eyeball was untouched. The cut was three-sixteenths of an inch wide, and the edges of the wound were smooth. The boy was able afterwards to walk, and told how the accident had happened. He appealed to the physician to save his life, saying that he did not want to die. During the dressing of the wound the boy straightened up several times, and the physicians were obliged to tell him repeatedly to lie still; he obeyed as readily as a well person would and understood what was required of him. He took in his hand a glass of whiskey which was given to him, which he drank without assistance. The accident happened on Monday, and during the week his intellect remained unimpaired until Saturday, when convulsions set in and he died. No *post mortem* was allowed by the parents, so the exact extent of the injury could not be ascertained. No functional impairment was seen until the boy was dying. Taking the extent of the surface wound as a basis of conjecture, or speaking mathematically, calculating the segment of a circle, the deepest serrated rim of the saw must have entered at least two inches into the skull and brain together. The cut was as clean as if done with a sabre, and was no doubt done almost as rapidly. Towards the end paralysis set in, but, strange to say, the medical men differed as to which side or limbs were paralyzed. Dr. Quin, the Chief Surgeon of the hospital where the boy lay, gives another case which came under his notice years before. There was a boy named Murphy, who fell out of a window of considerable height, upon the curbstone in the street. He struck it with his forehead. When he was picked up more than a teaspoonful of brain matter oozed out of his head. He got well physically and mentally, and

lived to be twenty-two years old although he was only five years at the time of the accident. There was no paralysis.

Of another case the doctor says: "There is Joe. Murphy, you may see him almost any day walking round the streets here. He is lame and drags one foot a little. One day in 1864 I was going along the street, when some people came running after me. I went into a basement and found Joe. Murphy had been shot in the right eye, two minutes before, with a bullet 38.900 calibre. I probed the wound and found the bullet flattened against the back of his skull. It is there yet. But Joe. got well, *and his mental faculties are unimpaired.* I've been intending to make a *post mortem* examination of his head, but I begin to think the old man will outlive me."

In the Canada *Lancet*, of April, 1872, Dr. T. R. Dupuis, of Kingston, Ont., states the case of a boy who had been injured by a fall from a horse while going at a rapid rate. The lesion was a compound fracture at the middle of the superior portion of the left parietal bone, with considerable laceration of the brain. The broken piece of bone was nearly an inch and three-quarters long, three-quarters of an inch broad at one end and three eighths of an inch at the other. One edge of this piece was driven down into the brain in such a manner that its surfaces occupied a position perpendicular to their original situation, while the other edge remained *in situ*, being still attached to the solid bone by the *dura mater*, which formed a sort of hinge, upon which the fragment turned. The history of the case states that the injury had been inflicted by the sharp edge of a stone. After exploring the wound with the points of the fingers, which passed in readily to the depth of half an inch or more, the fragment was

extracted by means of a forceps. Nearly a tablespoonful of brain substance was lost. At first the patient was comatose. This state continued for two days. At the end of the second day he had lucid intervals. On the third day consciousness began to return, and with it voluntary motion. At this time the wound was discharging disintegrated brain matter mixed with grumous blood and pus. Thirteen days after the accident the delirium was gone, but the mind was fickle, the temper irritable and capricious. Without entering into the whole history of the case as given, it may be said, the Doctor adds, "a month after this lesion had taken place all effects of this severe injury had passed away, except a slight puffy appearance about the face, a little clumsiness in his movements and some irritability of temper." Since that time he became as healthy and strong as he ever was. The patient was closely watched during the course of his illness, but the Doctor failed to detect any morbid mental manifestations that seemed to indicate injury to any distinct phrenological development. It will be seen that no disturbance of functions took place commensurate with the injury, nor were they such as would be expected by the school of cerebral localizers.

In the Montreal Hospital Reports of 1879 we have two cases recorded. The first is a case of a wound inflicted by a swiftly revolving circular wood-saw. It produced a serious lesion in the central part of the first and second frontal convolutions on the left side. The skull wound extended in an oblique direction from above the outer angle of the left orbit across the frontal, through the anterior superior angle of the right parietal and terminated about the center of this bone. It had penetrated through the membranes, and at the central part the brain substance was lacerated and ex-

posed, and could be seen pulsating. The *post mortem* revealed a large rent extending from the longitudinal sinus downwards and outward to a point a little anterior to the beginning of the fissure of Sylvius. The central portions of the first and second left frontal convolutions were completely destroyed. The patient was unconscious for about ten minutes after the accident, but when taken to the Hospital became *quite conscious*, and at that time had no paralysis, nor are we told that either one or the other supervened before death, which took place two days after the accident.

In the same Hospital Reports the history of a second case is given. A young man, aged 22, was accidentally shot by the discharge of a pistol. The bullet entered the skull above and a little in front of the right ear. From the first he was perfectly conscious, *not paralyzed*, and gave a rational account of how it happened. A probe was inserted into the wound, and it passed freely into the frontal lobe in the course of the bullet. Pulse 60. No elevation of temperature. The accident happened March 8th, and he died of consumption August 12th following, but between these two periods there was no unusual mental disturbance. Without giving the details of the autopsy suffice it to say, that the bullet entered the brain substance in the right inferior frontal convolution, just in front of the ascending branch of the Sylvian fissure. From this point the course of the bullet was upwards and forwards, passing out at the inner surface of the frontal lobe and lodging between the brain substance and the falx, where it lay surrounded by a firm membrane. A firm membranous canal marked the course of the bullet, and the brain substance about this was somewhat softened. This extensive destruction of brain tissue did not disturb the mind.

M. Flourens, of Paris, some years ago experimented on animals, not only to show the curability of brain substance, but also to demonstrate how much brain tissue can be injured without the untoward physical and mental results formerly apprehended and dreaded. He trepanned the skulls of dogs and rabbits, made a small opening in the dura mater and into the substance of the brain, and then put bullets into the wound! These bullets gradually penetrated through the cerebral matter by their own weight. When the ball was small, he found that the whole thickness of the lobe of the brain or of the cerebellum might be traversed by it without occasioning any symptom, or disturbance of function. The fissure made by the passage of the ball remains for some time as a canal; it then closes up and cicatrizes. (*L'Union Médicale*, 1863).

Dr. Thomas, surgeon to St. Bartholomew's Hospital, London, gives in the *London Lancet* of January last, an interesting case, in which the patient made a good recovery without loss of mental or physical power. A man thirty-five years of age, shot himself with a revolver through the head. The bullet passed in at one temple and out at the other. Half an hour after the accident the pupils were found to be natural, pulse feeble, and respiration natural. The patient was quite conscious, and answered questions correctly concerning his name, age, and address, and of his own accord. He was an educated man and spoke in German, but when addressed in either French or English he would reply in the corresponding language. He showed no signs of mental incapacity, nor was there any loss of motor power. He vomited a good deal at first, and at that time blood and cerebral substance were forced from the wound in the right temple. For several days he became quite irritable, and had a few delusions, but no functional depriv-

ation. On the forty-third day after the wound was inflicted he became quite well. At first a probe was passed its whole length into the wound and across the head without meeting the slightest resistance. At first the special senses were very slightly impaired, but all recovered their tone before he left the hospital, except the sight, which was slightly impaired. As regards the course of the bullet in this case, Dr. Smith says: "It is certain, from the position of the apertures of entrance and exit, that it entered the outer surface of the anterior lobe of the brain, a little above the level of the highest part of the roof of the orbit, and that it emerged from the left anterior hemisphere at a spot rather farther back and at a slightly higher level." From the large effusion of blood in both orbits, which so rapidly followed the injury, there is reason to believe that in its passage across the skull the bullet fractured the roof of both these cavities. From the free and persistent epistaxis, it is probable that the cribriform plate of the ethmoid or some part of the roof of the nasal cavity was broken into, while there was evidence, from the symptoms, that the olfactory bulbs did not escape disturbance or injury. It may be said that there is no direct proof that the left hemisphere of the brain was wounded at all, that the bullet may have run over the roof of the left orbit and up the inside of the skull to its point of exit from the bone. The surgeon is sure, however, that the probe traversed, without any sensation of resistance, both hemispheres, and one would think it impossible that a bullet of the size and weight indicated, after passing through one side of the skull, could have knocked a piece of bone clean out of the opposite side unless it impinged upon the inner surface of the bone in a direct line. As further proof pulsation and respiratory movements were observed in the blood tumor

over the aperture of exit, and these were so forcible as to indicate that the interior of the brain was in direct contact with the ecchymosis. It is certain that the part of the hemispheres that was damaged was the anterior frontal portion just above the orbits. Has this part any functional center? If so, where is the evidence of its being necessary, seeing that both frontal lobes were injured seriously, without any immediate results in proportion to the lesion inflicted? Is this an organization put in more to fill up, than to be of use to its neighbors? I had the impression nature had no garret filled with useless furniture. Some functional centers must have been badly broken up by this destructive intruder.

About seventeen years ago I was called to visit a boy, aged thirteen, who had been kicked by a horse. A section of the skull was crushed in on the right side, near the median line, in the upper part of the frontal and parietal bones. One of the nine pieces fractured and detached from the surrounding bone, had been driven into the substance of the brain, over an inch in a perpendicular direction. The membranes were lacerated very much, and brain substance, within a few grains of an ounce in weight, protruded through the wound much broken up, some of it hanging down upon his cheek. At the time I first saw him he was comatose. I extracted the bones; cut away the ragged edges of the membranes, and the lacerated brain substance. Consciousness returned immediately. His temperature remained normal; his pulse did not rise at any time above 96; he did not lose a night's sleep nor a meal after the evening of the accident. No febrile symptoms intervened; there was no paralysis, nor perversion of any of the organs of special sense; there was no difficulty in speaking. A large cavity remained.

He afterwards went to school to the same mistress as before, and she informed me that with the exception of a certain irritability of temper when thwarted, (which he did not possess before), he was as intelligent as ever, and could learn his lessons with his usual aptitude. This was especially noticeable in mental arithmetical exercises. He was under my observation for several years after the accident. After he was aroused from his comatose condition consequent on compression, his special senses were unimpaired; his locomotive and grasping powers normal, and his bodily health good in every particular.

These examples might be indefinitely extended. Medical literature is full of evidences of destruction to the brain matter of the cerebrum and cerebellum without any serious impairment of mental power or physical function. Let a brain be taken and wires passed through it to indicate the course of the missiles in these cases I have mentioned, and it will be seen that brain substance has been injured in almost every conceivable direction, yet, with no physical or mental results at all commensurate with the lesions inflicted. If these parts are motor centers, then have we the miraculous phenomena of organic operations without an organ—of varied and distinct functions without a motive power, and of uniform results without an efficient cause. Were we even to consider the brain a dual organ the difficulty would remain, where corresponding sides are simultaneously injured. In all the dual organs of the body we find, sudden injury to one is always followed by imperfect work in its fellow, until time is given to allow provision to be made for the extra labor imposed. When we find no impairment in function consequent on destruction of *one so*

called motor center, we are led by uniform analogy to doubt a doctrine so anomalous and contradictory. At least it is best to accept with caution a theory which is being accepted based upon exceptional examples, and which does not account for the physical results except in isolated cases. The mental effects seen, as consequent upon brain injury, would prove too prolific a theme for present investigation.

THE STRUCTURE OF THE VESSELS OF THE NERVOUS CENTERS IN HEALTH, AND THEIR CHANGES IN DISEASE.

BY THEODORE DEECKE.

VI.

In part four of this article,* attention was called to structural alterations in the capillary system of the grey cortex of the brain, which, although presenting appearances of pathological change, may occur, without being necessarily connected with any noticeable functional disturbances. They were claimed to be the result of processes, which in their nature stand at the very border of physiological and pathological conditions. From the microscopic appearance of this structural change, I propose to call it the *callous* degeneration of the capillaries. It is marked by a peculiar kind of swelling and induration, which the endothelium cells undergo, concomitant with irregular dilatations of the vessel and, at some places, with an occlusion and cutting off of the branchlets thus affected, from the general circulation. As these conditions of capillaries are also found in the brain of persons with no previous

* January, 1880.

history of disease, who died accidentally, in apparently good health, I consider them pathologically of importance only in proportion to the extent in which they are found in any given case,* or when with them, other lesions or other evidences of morbid processes in the organ are observed. More recent investigations into this matter induce me to fully sustain this statement.

In the following pages I confine myself to their appearance in the cases last mentioned. From the material before me I select, as illustrations, two remarkable cases, in which the most frequent occurrence of these lesions was concomitant with extensive capillary embolisms. In both cases there were marked febrile cerebral symptoms; an acute delirium with a high degree of maniacal excitement. Temperature fluctuating from 102° to 104° Fahr. Pulse varying between 94 and 120, in an inverse ratio to the rise of the temperature. Lips and mouth dry; tongue dry and cracked. Respiration 20 to 24, at times shallow, with heavy breathing. Pupils small, at times not responding to light. Face and extremities at times purple, cyanosed. Death occurred in coma. In both cases the disease was of short duration, viz.: eleven days in the one, thirteen in the other. The age of the one patient was sixty-five, of the other thirty-five; the one died on the first day, the other on the eighth day after admission.

At the autopsy in the first case, the kidneys were found congested, and the spleen much enlarged. The heart was fatty. Both lungs were congested; the lower lobe of the left lung consolidated, and on section of a peculiar dirty, in some portions, greyish brown color. The left pulmonary vein was almost completely obliterated by a thrombus, one and three-quarters of an inch in length, which had undergone partial decay, and about

*See Article IV, January, 1880.

two tablespoonsful of a white, creamy matter escaped from the vessel after dissection. The thrombus was not of very recent formation; it was laminated, and consisted of concentric red and grey layers, formed by accumulations of red and white blood corpuscles. There was no further organization of its elements, but the greater part of it was solid, and firmly adherent to the inner wall of the vessel. At its termination, the thrombus presented a yellowish grey color, and was of cheesy consistence. The pulpy or creamy matter collected from the vessel was composed of a finely granular debris, which contained an immense number of spherical bodies, formed of micrococci. Sections through the enlarged spleen showed the intra-vascular chords or the lymphoid parenchyma of the pulp, thickly packed with pigment masses. The blood was of neutral reaction. The proportion of white and red blood corpuscles, in an average of ten separate examinations, was as one to three hundred. Here and there white cells were observed of two and two and a half the diameter of an ordinary white blood corpuscle. Hæmoglobine 10.47 per cent. Samples of blood taken from the cavities of the heart, the lungs, the liver and the kidneys, showed an admixture of a finely granular detritus, and of globular masses of micrococci, from the size of a small red to that of a large white blood corpuscle.

Microscopic sections through the affected parts of the lung showed a catarrhal bronchitis and a catarrhal pneumonia; in the lower lobe of the left lung. The alveoli of the consolidated portions of the lung were, to a large extent, infiltrated with micrococci, in the majority of instances densely packed with these bodies.

When the encephalon was examined, it was noticed that the dura mater was very hyperæmic. The longitudinal sinus was very firm to the touch, much dilated

at its central arch, and, like the veins emptying into it, filled with solid blood and fibrin coagula. They did not, however, firmly adhere to the inner wall of the vessels, which appeared to be intact after removing the clots. The inner leaf of the dura mater was here and there slightly ecchymotic, and presented fine, yellowish red punctations. The pia mater, over both hemispheres, showed a high arterial and venous congestion; at the base of the brain, over the medulla oblongata and the pons, it was remarkably pale and anæmic. A closer examination of the supplying arteries at the base, and their contents, revealed the presence of micrococci and a granular detritus-like matter in the carotis interna, in the middle, in the anterior and in the posterior cerebral arteries, and in the anterior and posterior communicans. None of these vessels were, however, occluded. The brain, on section, in almost all its parts, exhibited a tinted appearance of the grey cortex and the puncta vasculosa in the centrum ovale. There was a bloody serum in the lateral ventricles; but nowhere hæmorrhagic foci.

Microscopic sections through the convolutions of the brain showed most extended capillary embolisms, especially marked in the temporal lobes, in the anterior and posterior central and the ascending parietal convolutions, and by far more frequent in the left than in the right half. There was, however, no part of the brain found entirely free from emboli. The substance of the emboli was more generally of a fibrinous than of a fatty nature, yet in the fibrin-coagula of the arterioles and larger and dilated capillaries globules of micrococci, and accumulations of a granular matter were most frequently found; in other instances the embolic masses were densely beset with fine prismatic crystals of hæmatoin. Of the nervous elements the pyramidal cells of

the second layer only of the convolutions, most affected, and some cells of the corpora striata and the optic thalami had undergone a cloudy swelling, and were of glassy appearance, so that the nucleus of these was rarely outlined. Yet, there was, aside from this, another pathological element present, of which I will speak further on. In this case, the affection had apparently originated in the respiratory organs. The history of the case is, in short, the following: The patient was a sailor, single, sixty-six years of age. Had been in a Sailor's Home about twelve years and was always steady and correct in habits. About two weeks and a half before admission, when he was visited by friends, he was allowed to accompany them to a neighboring village, where they gave him liquor and indulged in excesses. He returned intoxicated, and sick from unusual exposure, and was for this offense deprived of certain privileges, from which time he appeared to labor under some mental depression and excitement. Four days later, while in chapel, in the midst of the sermon, he arose and asserted, with great emphasis, "I am God;" repeated this assertion and said that when he was dead the sun would never rise again. After this he continued to be very delirious. Ten days later he was brought to the asylum in restraint, hands tied together with a rope. In office was, at times, very loud and demonstrative; paid no attention to anything said to him; then again sat with head down muttering to himself; then started up suddenly and with eyes fixed on the wall shouted incoherently; was thin in flesh, haggard, and appeared very sick and feeble. Pulse 84. Temperature 102° Fahr. He died twenty-four hours after admission.

Symptomatically, as it will be conceded, this case stood right at the border of a so-called acute delirium

and acute insanity. There was, undoubtedly, a delusion, preceded by a state of mental depression and excitement; yet, this appeared to be entirely covered up by a general confusion of ideas—a symptom so frequently associated with sudden attacks of acute febrile diseases. And, taking into consideration the rapid course of the disease, it seems to be impossible to decide in favor of the one or the other interpretation. Etiologically, two important factors were present—a physical, the excessive use of liquor and the exposure which created a bodily disease; and a psychical, the mental depression and excitement originating in the consciousness of the offense committed, and of the fact of being, therefore, deprived of certain privileges, two things, apparently, of great weight in the life of the individual. Anatomically, there was a severe affection of an organ, essential to physical life. The peculiar pathological nature of the affection was such that its germs spread out rapidly, and were carried into all parts of the circulatory apparatus. The condition of the blood was altered, and the lack of a proper nutrition and a normal change of matter interfered directly with the normal functions of all organs of the body.

The first physiological effect perceptible, was, undoubtedly, a general stasis in the venous system, associated with an arterial engorgement. There was, then, an occlusion of the smaller nutrient vessels by emboli, and, consequently, as the first pathological factor, a back flow of the blood in the districts supplied by terminal arteries, in Cohnheim's sense. This must have been especially of importance in the brain, the organ which here comes before all the others, into consideration, where this system is most prominently developed. Since we know, by direct observations, that in such cases, the checked blood-current empties through the nearest

unaffected artery, into the veins, this must have greatly added to the stasis and the engorgement in the latter, and must have produced dilatations of the veins, morbid conditions which were found so well pronounced at the autopsy.

It will be seen from the foregoing, that in this case, all the circumstances were present, which would favor the development of inflammatory processes in the districts affected, viz: the diapedesis of white, even of red blood corpuscles, or even actual hæmorrhages. Of the latter two, there were, however, no evidences detectable. Concerning the diapedesis of the white corpuscles, it must be admitted that its demonstration in the tissues of the nervous centers, especially in the grey cortex of the convolutions, is connected with peculiar difficulties, since we have no means at disposal, of distinguishing the white corpuscles from lymphoid cells, or from the nuclei of the neuroglia. In the case before us, however, and the observation dates as far back as 1876, I have detected the presence of elements in the tissues affected, which are unquestionably of pathological nature, and seem to be evidences of the existence of diffuse inflammatory processes connected with capillary embolism. This would be quite in conformity with the suggestion, first made by Charlton Bastian, of the possible relation between febrile cerebral symptoms and capillary occlusions. From my own observations during the last four years, I can add four new cases to the one related, which I selected for communication, on account of the clearness of the clinical picture, and of the etiology, the anatomy, and the physiology of the disease. In the second case, mentioned in these pages, and which will be described further on, the anatomical condition was diagnosed, and the correctness of the diagnosis established by the autopsy.

The elements, referred to above, upon the presence of which, anatomically, the theory of the existence of diffuse inflammatory processes, associated with capillary embolisms in the brain is based, are peculiar cells or bodies, found in large number in the tissue of the parts affected, corpuscles of various size, up to the one-five-hundredth of an inch in diameter. They are globular, round, elliptic or oval, smooth bodies, perfectly transparent, yet slightly refracting the light. If the latter was not the case, they could easily be taken for hollow spaces. Inside these bodies, there is, at all times found, enclosed like the nucleus in a cell, a white cell or corpuscle. It is an interesting fact—and in consequence of this only are these bodies detectable in the tissue—that in fresh specimens, viz: sections through the fresh brain, neither the substance of these bodies nor their nucleus, or the white cell in the center, imbibes the color from the carmine solution. They are thus distinguished from the nuclei of the neuroglia, the ganglion cells and the lymphoid cells, which all become more marked by taking up the color. Under all circumstances, however, they are easily overlooked; yet, even in stained sections through the hardened tissue, they can be made out when the attention is directed to them. Since the bodies are, as stated, on the average, of considerable size, the sections, of course, should not be too thin; in which case, they would present the appearance of an empty space.

Now, my theory as to the origin of these bodies in the tissue is, that they are migrated white corpuscles, surrounded by a peculiar gelatinous protoplasmatic substance, and that the whole represents a new formation, as the product of an inflammatory process. The protoplasmatic envelop being of a different nature from the ordinary cell protoplasm, protects the white cell

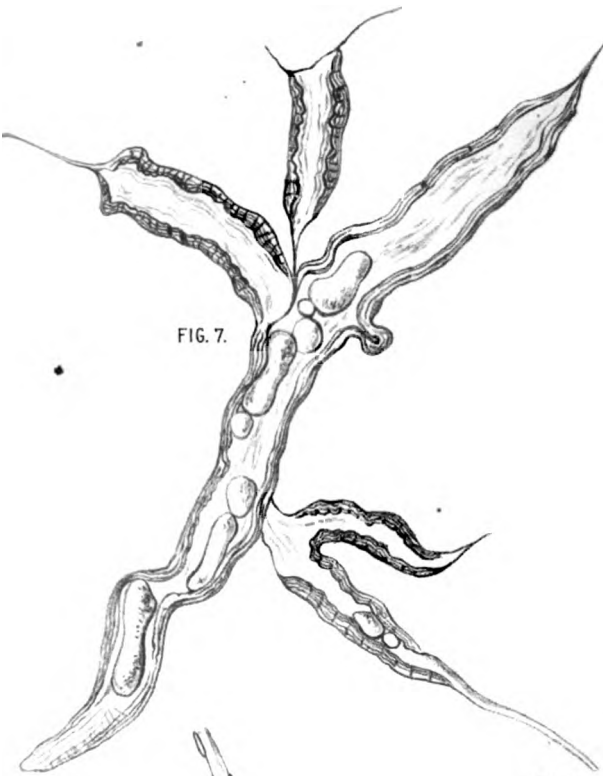


FIG. 7.

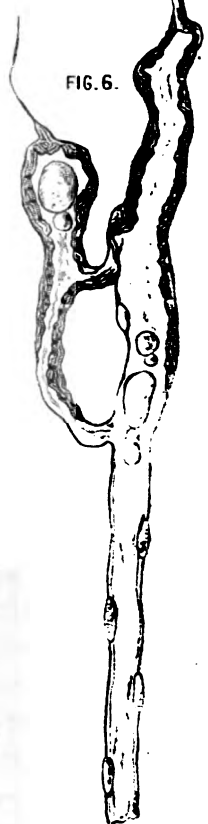


FIG. 6.



FIG. 3.

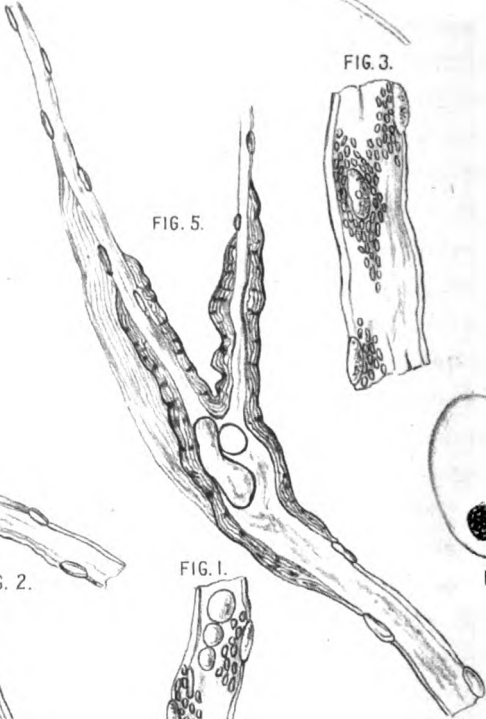


FIG. 5.

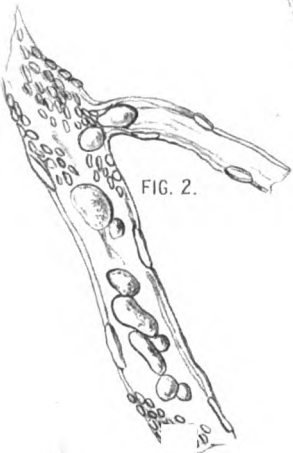


FIG. 2.



FIG. 1.



FIG. 8.



FIG. 4.

or the nucleus from becoming colored, when placed in the carmine fluid; it does not resist, however, the action of the iodine solution, which colors the nucleus dark—the protoplasmatic envelop light yellow. In plate I, figs. 8 and 9, I give as good a representation of the bodies in question, as possible; the peculiar slight refracting power of the protoplasm or gelatinous envelop, of course, can not be illustrated.

Another remarkable anatomical feature in the case before us, was the frequency of the above mentioned callous degeneration of the capillaries. This alteration of the capillary endothelium is, as it seems, always the result of an obstruction of the circulation in the vessel, although not always that of an occlusion by an embolus. The latter may just as well, according to circumstances, be followed by necrobiotic processes, the disintegration of the vessel and the transformation of the nuclei of the endothelium into granule cells; or by an entire dissolution and necrosis, together with the surrounding neuroglia and nervous tissue. Of these two, the one is more frequent in, or in the neighborhood of hæmorrhages foci, the other in cases of the entire cutting off of areas from the general circulation, by the occlusion of a larger supplying artery. In capillary embolisms, the fatty fur, especially around the nuclei of the endothelium cells, (see plate I, figs. 1, 2 and 3,) is the most frequent occurrence. Besides this, however, the so-called callous degeneration seems to play a role of some importance, of which illustrations are on the same plate, of the appearance of single branches, as well as of anastomosing vessels, figs. 4, 5, 6 and 7. Yet, I may be permitted to add, that they are not presented here as anything new, but as an anatomical fact, which has, as it seems, not fully received its due consideration and interpretation.

The history of the second case was, briefly, as follows: A man, 35 years of age, of good habits, active in business, and in apparent good health, while traveling on business in a western State, went to bed in the hotel, where he was stopping, without complaining, or anything peculiar being observed about him. In the night a noise was heard in his room, and he ran down stairs and into the street in his night-clothes. He was followed and returned in a state of delirium and declared that persons were pursuing him. It was found that he had knocked the panels of the door out with his chair, and thus escaped. After being sent the following day to the business house for which he was acting, he, being most of the time in a comparatively quiet and rational, though at times delirious state, insisted on adjusting his accounts, which he did accurately. He soon, however, passed into a state of delirium, and was brought to the Asylum. During the whole of the journey of twenty-four hours, he alternated between a dazed condition, in which he mumbled to himself, and periods of delirium, but did not seem to recognize those about him; and, during all this journey, he at no time slept, neither were they able to give him any nourishment. In the office he was examined by Dr. Gray. He made no responsive reply to any—even the simplest—questions asked him. He then seemed to be in a dazed condition, muttering to himself and looking about the room. His mouth and tongue were dry, temperature 102° Fahr., pulse 100, the pupils slightly contracted; his hands in more or less constant motion, attempting to take off his coat, picking at his clothes. He continued in this condition about four days, when the delirium became less, and although he was quiet, he had no appreciation of his state, and made no response in answer to any questions. On the evening of the fifth day, he

began to breathe more slowly and to show signs of stupor, but could easily be aroused. At the same time his face and extremities were purpled, the pupils contracted and did not respond to light; the temperature the same. After a few hours this passed off. On the following day, he again passed into the same state of semi-consciousness, with the same general manifestations, and so continued for some hours, with a rise of temperature to 102.4-5° Fahr. On the seventh day he was lying quiet in bed, but was still incoherent and confused; pupils small, but responding to light; face less blue and congested; respiration 20; pulse weak, 120; temperature 102°; the lips and tongue dry and cracked. Late in the evening he passed again into a semi-comatose condition; was not able to swallow anything; face and extremities were cyanosed; respiration 24, shallow; pulse 112; temperature 103.5°. From this attack he could not be aroused, and continued comatose until 4.45 P. M. the following day, when he died. The diagnosis was: Diffuse cerebritis associated with capillary embolisms. The autopsy revealed a dilatation and bulging out of the longitudinal sinus; slight ecchymoses at the inner leaf of the dura mater; a high degree of venous and arterial congestion of the pia mater over the whole convexity of the brain. The temporal lobe of the left brain was soft to the touch; that of the right in a lesser degree, and the same condition was found at the parietal and the lower frontal convolutions. Both lateral ventricles contained a fluid bloody exudation. An examination of the other organs of the body was not made.

Microscopic sections showed in the convolutions of all the parts mentioned, most extended capillary embolisms, which were less frequently found in other sections of the organ. There were also numerous cap-

illaries showing fatty infiltration and callous degeneration of the endothelium, and a great number of the cell-like bodies described in the foregoing in the convolutions prominently affected by the capillary occlusion. The tissue bordering the lateral ventricles was infiltrated with red blood-corpuscles, which presented in many places already an altered condition; in others, the recent migrated corpuscles. The infiltration was, therefore, not an evidence of an actual hemorrhage, but of a slow, continuous diapedesis of the blood-elements.

The case, as it will be observed, presents in the main features very much similar to the one related above. Symptomatically there was the same prevailing acute delirium. Etiologically overwork was ascertained as the prominent psychical factor. The physical cause, as we have learned from information later received, was very probably a malarious infection which preceded the attack. The anatomical conditions were in both cases alike even in details.

If we recapitulate, in short, the principal features presented in both cases, we have an acute delirium, so strongly simulating mania that it may at least be said to lie on the border line of true maniacal excitement of the insane; in both, etiologically, a psychical and a physical factor, and, as the anatomical basis, an acute disease associated with a diffuse cerebral affection; in both, a coincidence of circumstances and effects composing the very soil in which acute insanity roots, and from which it draws its nourishment.

ON SOME CHANGES IN THE GANGLION CELLS OF THE GREY CORTEX OF THE BRAIN IN ACUTE DELIRIUM, AND THEIR RELATION TO THOSE IN ACUTE INSANITY AND IN DEMENTIA.

BY THEODORE DEECKE.

In the cases related in the preceding article*—to which I must refer the reader for particulars in order to prevent repetitions—an excellent opportunity was given to demonstrate the existence of palpable structural changes in the ganglion cells of the convolutions in a diffuse cerebral affection, which presented during the short term of its duration, symptoms of a delirium resembling closely the acute maniacal excitement of the insane. It is well known that a great number of authors up to the present time consider the phenomena of delirium, as well as acute insanity itself, as merely functional, and, while they admit that these conditions are mostly associated with grave disturbances of nutrition, and perhaps material alterations in the vascular system, they deny the occurrence of any visible changes in the structure of the nervous elements themselves. This view has been opposed to the experience of Dr. Gray, of Utica, and since my official connection with the Asylum as special pathologist, I have given this question the most careful investigation, and I have in the annual reports described the conditions observed in such cases under the terms of cloudy swelling, of contraction, and of the glassy opacity of the pyramidal

* This Number, page 273.

cells of the convolutions; though I was for some time in doubt concerning some of the anatomical details of these conditions. It was furthermore desirable to study the objects *in situ*, if possible, without changing anything; and to avoid the use of agents which, by chemical action, could be suspected of producing changes in the tissues. There was also some ground to expect alterations in these most delicate structures from the cessation of the chemical and physiological processes of life in the tissues. In order, therefore, to take all this in due consideration, I have delayed the publication of observations made some time ago until by a broader experience I should be able to demonstrate the correctness of the results obtained.

The best results are obtained from the immediate examination of the fresh brain tissue. With a sharp knife, kept wet with water, to which a small quantity of glycerine has been added, or even directly in this liquid, microscopic sections can be made sufficiently thin and transparent as to permit the use of all the higher magnifying powers applicable in histological investigations. The liquid in which the sections are mounted is diluted glycerine; and no pressure is allowed to act upon the specimens other than that which the thin cover-glass exerts when of the embedding fluid so much is removed by blotting-paper, that it just fills out the empty space between the slide and the cover. Thus the margin only of the section comes into contact with the fluid, while its surfaces are spread out smoothly on the glass surfaces. In such preparations the vascular arrangement, the distribution of the nuclei of the neuroglia, and the ganglion cells and nerve fibers in their natural appearance and position, are brought to view with great distinctness. The long processes of the pyramidal cells, which extend toward the periphery of

the convolutions, may be followed up to three and four times the diameter of the field of vision of a one-fifth objective. The condition and position of the nuclei and nucleoli of the cells can be clearly pointed out, as also the roots at the base of the cells and their origin. All this, however, will not visibly be altered when the fresh sections are soaked for staining in a carmine solution, to which a little glycerine has been added. They imbibe a small amount only of the coloring material, yet some details of structure may become thus more distinctly outlined. I have, therefore, most frequently in successive sections employed alternately both methods.

Now, if in such preparations in the same field of vision, a certain number of ganglion cells exhibit marked changes in structure and others not, or when in successive sections of certain convolutions changes are observed which are absent in other convolutions, it is evident that these facts admit of but one interpretation. The changes can not have been produced artificially by the action of foreign substances, because there has none been brought into contact with the specimen. There has also no instrument been used to tease the tissue, and no pressure by which the natural condition and form of its elements could become altered. Yet, even if the former had been done, it can not be seen why it should have affected in the same specimen some of its constituent elements, and others not. For the same reason, also, we can not assume that the changes observed were produced in the act of, or after, the death of the tissues. It remains, therefore, only to conclude that they are the result of natural causes, which existed previous to the extinction of life in the tissues; that is, previous to the cessation of the chemical and physiological processes of life.

We do not have, it is true, any knowledge as to what movements and alterations these most delicate structures perhaps are subjected in connection with the normal manifestations of life, yet there are no indications whatever that they are of other than of a molecular nature, by which, according to ingenerate organic laws, in spite of all interchanges of matter, the individual elementary form is preserved. On the contrary, however, associated with established deviations from the normal interchange, we presuppose that for this change of circumstances, a physical formative equivalent must be demonstrable, and, vice versa, that changes of form and structure can but be a manifestation of the existence and the influence of modified processes of life.

With this we enter into the natural relations between cause and effect, as an association of facts. But in this I am far from suggesting any attempt or effort to explain the nature of the one by the nature of the other. This would be, in my opinion, entirely beyond the limits of scientific investigation. And it appears ridiculous when a third associated element is called forth, the clinical symptoms by which the affection manifests its existence during life, to face the anatomical and physiological facts observed and deduced.

I make this remark because I am aware of the lack of sound philosophical principles, and of the great confusion of ideas in some very pretentious representatives of science, who not only themselves find pleasure in the attempt to explain the clinical manifestations of a disease* from the nature of the anatomical conditions found after death, but who also demand of others to undertake the same task.†

* This JOURNAL, Vol. XXXIV, page 80; Article, Katatonia.

† *Chicago Journal of Nervous and Mental Diseases*, April, 1880, p. 297: "In cases of *psychical* derangement, not only to *accurately localize* the *disease*, but also to *explain* from the *seat* of and the nature of the *lesions* the *symptoms* which marked the case *intra vitam*."



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.



FIG. 10.



FIG. 8.

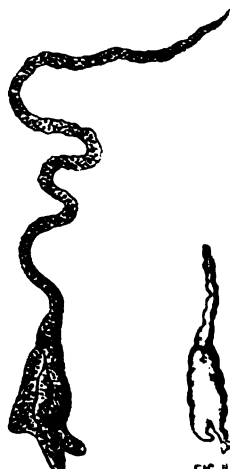


FIG. 9.



FIG. 11.

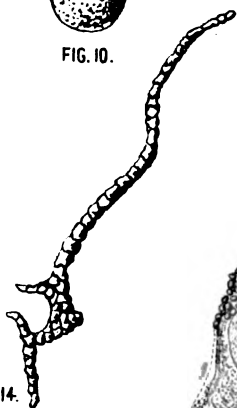


FIG. 14.

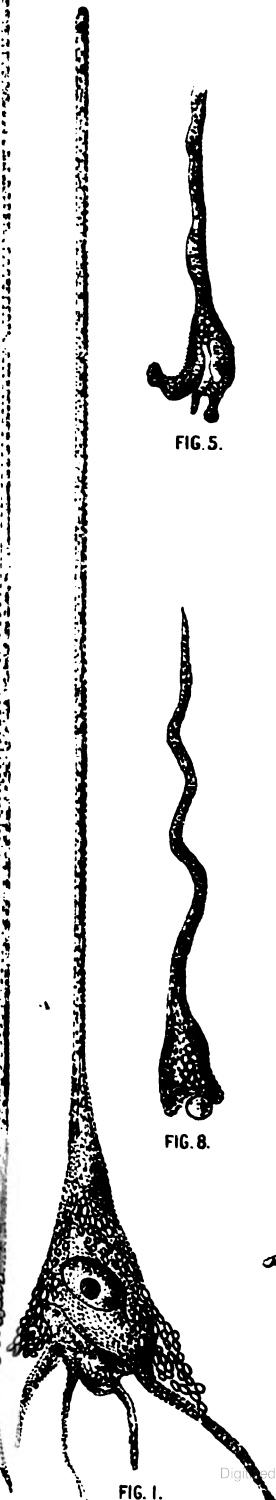


FIG. 1.

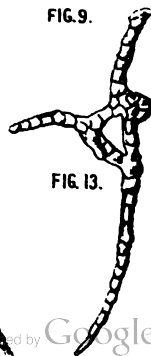


FIG. 13.



FIG. 12.

I wish, therefore, to be rightly understood that I do not believe in any such absurd views; to illustrate, who would suggest that the phenomenon of cough is explained by the detection of a morbid condition of the lungs, or of the other air-passages; or, that in a given case the general rise of temperature observed is in any way explained by, let us say, the detection of a discharging abscess somewhere in the body; or, that special phenomena of insanity are explained by the detection of certain changes in the vascular arrangements or in the ganglionic cells of the brain, &c. All such attempts are the results of untrained thought, and of an entire misapprehension of the relations of facts and of the relations between cause and effect in nature. I have sought to collect facts, and to state the phenomena of the associations of the facts observed, and in this sense I would like to ask the reader to look upon the title and the contents of this article.

The first change in the ganglion cells of the grey cortex of the brain from the natural, is noticed in the appearance of a granular or fatty fur, which, like a loose covering, hangs over the body of the cell. It is much like the one referred to in the foregoing article, which lines the smaller vessels. In Plate II, figs. 1 and 2, I give an illustration of two large pyramidal cells in this condition, which are taken from the third layer of the left anterior central convolution. (Case II.) The same lesion, as is well known, has been observed by others, and was described by Voisin,* who gives, however, a very inadequate illustration of it. Occasionally a similar condition may be found in one or more of the convolutions of the brains of persons who have died

* *Leçon Clinique sur les Maladies Mentales.* Paris: 1876.

without having shown any symptoms of cerebral affection; yet, in cases like those here related, and in acute insanity, they are of so frequent occurrence, exhibiting all degrees of the affection, that there can be no doubt as to their pathological character. It can furthermore be shown, that they are more frequent in those parts of the grey cortex in which at the same time marked vascular lesions are demonstrable, like those referred to in the foregoing article, and others which will be described hereafter. As to their origin and meaning, there can, as I believe, be no doubt. The deposits are of a fatty nature, and must, as such, be attributed to a defective local combustion or oxidation, brought about by an insufficient supply of the tissues involved, with arterial or oxygenated blood.

The cells themselves, during this affection, retain, as it seems otherwise, their natural form and appearance; the peripheral protoplasmatic processes and the roots at the base of the cell are not altered, as far as the microscope reveals, and the nucleus and the nucleolus of the cells are distinctly outlined and show no change of position. There is, therefore, no reason to assume that the affection indicates a lesion of a permanent or progressive character, provided that relief is accomplished from the main cause of the condition, the defective nutrition or defective aeration of the tissues involved.

Now, in the progressive stages of this affection, we notice that the parts of the cells which become next involved, are the roots at the base, and probably at the same time, the nucleus. Of an intermediate state between these two, I have not, as yet, had a perfectly clear illustration; and I retain, for this reason, the sketches made, as at present, not decisive. More evidences are, however, on the side of changes in the condition of the roots, as preceding the others. The roots

appear shriveled, contracted or drawn in, somewhat like the feelers of a snail; and in farther advanced stages, they almost entirely disappear.

It may not be improper to remark here, that from my study of the nature of the cells and their processes, I can not relate a single instance in which one of the basal roots was seen to terminate in a nerve fibre, forming its axis-cylinder, as is generally accepted as a fact. This theory, as it is known, is entirely founded upon the supposed analogy of these cells to the great ganglion cells in the spinal cord, and not upon direct observation. Yet, there is neither a physiological necessity for this, nor does it in any way facilitate a better understanding; the prolongations may just as well, in fact, be the central sensitive expansions of the ganglion cells, and the term feeler or antennæ of the cells, may not inadequately be applied to them. Now, this interpretation may be right or wrong; the fact, however, can not be denied that the first, or one of the first structural changes of the pyramidal ganglion cells of the brain takes place in the protoplasmatic processes at the base of the cells, and that the changes appear in the form of a coagulation or contraction of the processes. And this fact seems to be the more interesting, as, undoubtedly, the first manifestations of psychical disturbances point towards some interruption or disorder in the central centripital tracts, or in the sensitive sphere of the central organ. I do not, however, propose to enter, here, into theoretical considerations, which will be made the subject of another article.

I have observed the structural changes at the base of the cells in the two cases described in the foregoing article. These changes are of constant occurrence also in acute insanity, and represent a morbid condition of the nerve cells, which, as we must suppose, under favor-

able circumstances, are capable of restoration. Yet, in farther advanced stages, where the body of the cells and the nucleus begin to participate in the changes, the possibility of this may perhaps be questioned. Figs. 3 to 6 are illustrations of these latter stages. The roots at the base of these cells have entirely disappeared; the protoplasmatic body of the cells is contracted and more solidified, as it seems, than in the normal state. In fig. 3, a fissure in the protoplasm is seen, through which the nucleus projects. In fig. 4, an entire division of the protoplasm has taken place, the lower part shows a finely reticulated structure, the upper is irregularly contracted and dilated, while the nucleus, opaque and altered in form, seems to be at the point of leaving the cell. In both cells, however, the peripheral processes, which are omitted in the drawing, preserved their normal appearance, as shown in figs. 1 and 2, in a perpendicular line, tending toward the periphery. In figs. 5 and 6, varied appearances of the contraction of the cell protoplasm and the nucleus are given. Figs. 7, 8 and 9 are drawings of some further changes, which illustrate more advanced stages. In these, the peripheral processes also exhibit signs of being affected. By an irregular contraction, they become more or less tortuous, are granular, and can not be traced far upward from the cell; here and there they are of a varicose appearance, as in fig. 10; while the cell body itself has passed over into the condition of cloudy swelling.

The most advanced stage of the degeneration of the ganglion cells in acute insanity, at least as far as I have observed, is illustrated in fig. 11, which represents the "glassy opacity" of the cells. Even in this state we may sometimes succeed in discovering a nucleus inside the cell, which, perhaps, indicates that life was not entirely extinct.

From a physiological point of view, we would conclude that at least the stages of change illustrated in figs. 3 to 11, are of such a character that they must be associated, in their progress, with an entire inhibition of function. This complete arrest of function is, of course, not present in the beginning of acute insanity. Yet, it must be remarked that, since all the cases which come directly under histological observation terminated fatally, we have no right to claim that alterations of that kind *necessarily* occur in cases which take a favorable course. They are, therefore, not more than types of histological changes observed in cases of acute insanity, which terminated fatally. However, I should be inclined to take a little different view of the earlier stages of change from the normal, of which we, likewise, found examples preserved in the tissues examined. They would, physiologically, of course, not amount to an inhibition, but to a limitation of function. Now, for this, at least, one anatomical equivalent is offered in the early affection of the basal processes of the pyramidal cells, and it will be admitted that the earliest characteristic symptom of insanity consists in an embarrassment and limitation of function.

With this, however, we do not exclude the possibility of the actual occurrence of the farther advanced changes in cases which take a favorable course. An inhibition of function, in a physiological sense, does not involve the anatomical destruction of the organ, or its constituent cell elements, and does not exclude the possibility of a return to the normal condition, as long as the destruction is not anatomically complete.

With a very different view, therefore, we would look upon the transformations of ganglion cells, as presented in figs. 12, 13 and 14. In these, there is no anatomical element left of the original cell, aside from a resemblance

of the external form, and no element to which any interchange of matter in a physiological sense, could be attributed. We have called this condition, for some years past, the *pearly degeneration of the pyramidal cells of the convolutions of the brain*. It is the entire mortification of the cell, and I give the illustrations of this condition, for the purpose only of comparing them with those described in the foregoing. They are a constant feature in cases of dementia, and most frequently found in the precentral and the upper frontal convolutions. Yet, I do not intend to enter, here, into any topographical details, and must leave the working up of the material collected in reference to it, to some future occasion.

NARCOLEPSIA.*

BY JOSEPH WORKMAN, M. D.,
Toronto, Ontario.

Under the above appropriate title, *Dr. Gélinau* records in the *Gazette des Hôpitaux* an interesting case, which, though considered by him as *unique*, we are inclined to regard as typical of a form of cerebral disorder probably not unknown to some members of the profession; at all events, we are able to recall at least one instance in which it has been brought under our notice, though not in a character so sharply marked as that exhibited in *Dr. Gélinau's* case, which we present in English dress, together with comments:

"Mons. G——, aged 38 years, a retail vender of wooden ware, of sanguino-nervous temperament, presented himself at my clinique on 15th February, 1879. He had never had convulsions in

* A paper read at the Toronto, Ont., Medical Society.

his childhood, nor syphilis later; he had two sons, the younger of whom was only a few months old. His father was nervous, but never suffered under any important disease. His mother died of cancer, and a brother died of ulcer of the stomach. He was himself a moderate drinker; for the past five years he has had acute rheumatism and *herpes tonsurans*. Three years ago, in a warm discussion on a matter of business, he received from his opponent a violent push, to which he responded by a stiff throttling, the issue of which was his arrest, and great subsequent disgust. A little later he received a blow on the head, which did not cause much pain; nor did he experience any abnormal sensibility in this region, or any nervous depression worthy of notice.

For a long time no consequent symptom was manifested; it is only within the last two years that he found when he laughed heartily, or discovered that he could make a profitable bargain, his legs suddenly trembled. Afterwards, if he found when playing at cards that his luck was good, he became so much moved that his arms became powerless, his head drooped, and he fell into sleep, out of which he awaked in a minute. Presently afterwards a slight emotion sufficed to induce his sleep, and subsequently this imperious necessity incommoded him continuously. During his meals he must stop eating four or five times, and repose; his eyelids fall, his hands let go the fork, spoon or vessel; the phrase which he had commenced in a high voice, he ends with great difficulty in a muttering and low articulation; his head is bent down, and he drops asleep. In vain does he rub his eyes, his hand drops powerless, he is overcome, and he curls up and sleeps. If he chances to be walking on the street when this necessity assails him, he tumbles down like a drunken man; he hears the passers-by accusing him of intoxication and deriding him, but he can not make reply; their jests annoy him. When falling, he instinctively endeavors to save himself from passing horses and carriages. When a crowd surrounds him, (a very usual occurrence in Paris,) he hears, or fancies he hears, their commiserations over his condition, and the impressions thus made still more paralyzes him and retards his uprising.

If he undergoes any profound emotion, whether pleasant or painful, the necessity to sleep becomes more imperious and sudden; and thus, when he closes a good bargain, meets a friend, or wins at cards, he suddenly falls and sleeps. If he goes to the *Jardin des Plantes*, near to the cages of the monkeys, where the curious and the soldiers and jesters usually congregate, he goes to

sleep whilst all about him are laughing. If he goes to the theater, he sleeps on entering, at the bare idea of the pleasure he is about to enjoy; he also sleeps on taking his seat, and his son is obliged to shake and pinch him to arouse him; but once the actors appear this is unnecessary, and he follows the piece with interest, without sleeping a moment, unless some pathetic part causes emotion. Bad weather, and above all the approach of a storm, hurries on his sleeping fits, so that he may have two hundred in the course of a day. The only means of arousing him is to shake him violently, or to pinch him, but though when angered he sleeps less, yet a longer repose, and more heavy, is the consequence.

During his sleeps, the pulse, which usually runs at 66 to 68, immediately falls to 58 or 60. His pupils are much contracted when he is awake, but much less so when he sleeps. They contract readily when a light is presented. The accesses last from one minute to five.

No morbid condition is presented; the lines of his physiognomy are tranquil; he eats well, and his sleep by night is excellent. He takes coffee once daily, and he has no constipation. His sexual desires have greatly diminished; he states, however, that he lately has had a son, but that he was conceived at a moment when he was under a fit. He is a member of a mutual aid society, and his diploma bears the diagnosis of *morbus sacer*. He has been attended at home and in the Salpêtrière. When he went, he slept several times, first at the gate of the hospital, next in the hall, and finally in presence of the doctor he came to consult. Bromide of potassium, sub-cutaneous injections, hydro-thérapie and electricity had been advised, and finally cauterizations on the neck, but he said he had derived no benefit from anything that was done for him.

The sensations experienced by him in the moment of attack are, profound heaviness, a feeling of intercranial vacuity, a sort of whirling round of the head, and a weight in the forehead and in the back of the eyes. His thoughts become veiled and obscured, his eyelids half closed; yet he hears and retains consciousness; finally, his eyes close completely, and he sleeps. All this passes over rapidly, so that this preliminary period of physiological sleep, which usually extends over progressive periods of five, ten or twenty minutes, lasts with him only a few seconds.

If he is requested to shut his eyes and to walk and speak, as is tried on ataxic patients, his voice becomes extinct, and he sleeps and falls, but without any disordinate movements. If he goes

into any dark place, such as a cellar, he feels a still stronger tendency to sleep. When he walks on a descending street, he has difficulty in halting, and the same when he pushes forward a hand-cart, but when he drags it after him, he does so easily, without sleeping, doubtless because his will is more energetic. (?)

He has never during these sleeps voided his urine or fæces. On one occasion he conversed for half an hour without sleeping. His memory has not weakened; he gives a correct account of the state of his affairs, and he works actively, but not alone, because he can not move around without danger. When he does work alone, he has fewer attacks than when he is accompanied, because, being a great talker, he becomes animated and then goes to sleep."

The fact stated by Dr. Gélineau, as to the greater liability to occurrence of the sleeping fits when the man was pushing the hand-cart before him, than when drawing it behind him, seems to me not ascribable to the cause assigned by Dr. Gélineau, *i. e.*, the higher degree of will energy under which he acted in the latter. Is it not probable that this energy was put forth more strongly when he was pushing the cart forward, and that his attention was then more concentrated on his work, than when the cart was out of his sight. It appears from all the statements made by Dr. Gélineau in relation to the incursions of the sleep-fits, that they were consecutive to manifest psychical, or emotional, disturbances, whether these were of a pleasing or a painful character. Who can believe that when driving a profitable bargain, playing a winning game of cards, entering a theatre, or advancing to the front of the monkey cages, his will was not in a pretty active condition? Would not any discreet neurologist, aiming at amelioration of his disorder, have admonished him against all such provocative indulgences? Assuredly the less earnestly he entered into any sort of engagement, the more probable would have been the avoidance of the fits, and the decrease of their number.

But irrespective of the psychical factors which appear to have entered into the prodrome of the morbid physical manifestations, may not disturbances in the muscular co-ordinating powers have enacted a very important rôle in the narcoleptic seizures; and may there not have been an intimate relation between this physical disorder and the blow received by the patient three years before? We all know that very serious morbid phenomena may supervene to injuries of the head, long—sometimes indeed very long—after their infliction. The inability of the patient, when walking down hill, to come to a steady halt, seems to me to point to some tenacious lesion of the cerebellum. The reflex, *quasi* involuntary motions of walking, which required no exertion of the will, were readily performed, but the requirement to bring this faculty into action, in command of a different order of muscles, would seem to have unbalanced him, and to have precipitated the fits. I dare say most of you have noted a similar failure of power in men rather advanced in intoxication. I have seen a very marked instance of it in a boy who was unable to assume or maintain the erect position until he had reached his fifth year. When at length by the assiduous and skillful training of his mother, he began to relinquish the quadrupedal style of locomotion, his greatest difficulty was not that of forward movement, but of stopping in this, and standing still. He could run as fast as other boys of his age, but he could not keep up a regular walking pace with them. The father of this boy is a very intelligent physician, and he has informed me he has always supposed that congenital defect in the cerebellum has been the cause of the boy's muscular infirmity. The shape of the cranium certainly indicates congenital atrophy. The boy is mute, but by no means either deaf or defective in apprehension. He understands

every word spoken to him, and promptly obeys all the commands of his parents, but he never attempts speech articulation beyond three or four common monosyllables. There must therefore be somewhere a missing link between the cerebral center of verbal impressions, and that of the transforming of thought into articulate sounds.

To revert, however, to Dr. Gélinau's patient, what relation can be supposed to exist between any hypothetical organic lesion, or functional disorder, of the brain, and his transient narcoleptic seizures? The fact of the coincident debilitation of the heart's action, as indicated by the reduction of the pulse rate from 66-68 to 58-60, is evidence that the normal supply of blood to the brain has suddenly fallen off; and consequently this organ is brought into that condition of comparative anæmia which modern physiologists hold to be its state during sleep; but whether this change in the blood supply is, in the present case, causal or resultive of the narcolepsy, may be a question for cautious consideration.

Before closing these remarks, I would ask whether the restriction of forward impetus, by the traction of the hand-cart, acting as a sort of railway break, did not operate on the man, as a moderator of his momentum, and thus secure his safe equilibrium. I have little doubt that if we could have the advantage of observing his ordinary unrestricted pace and bodily attitude, his head and shoulders would be seen to be too much in advance of his center of gravity.

THE CAUSAL RELATION NERVE STIMULANTS SUSTAIN TO INSANITY.*

BY D. R. WALLACE, M. D.

The subject to which attention is directed, more fully set forth, might be expressed thus: Nerve stimulants in causation of insanity, as developed in those afterwards becoming insane themselves, or transmitting to their posterity a vitiated nervous organization, as the physical basis of an insane psychosis.

The writer received, a day or two since, the report of Dr. Daniel Clark, Superintendent of the Asylum at Toronto, Canada, well known to writers as a gentleman of excellent parts and liberal culture, as also of some years' experience in a large lunatic hospital.

This gentleman sets forth his opinion of drunkenness as a factor in insanity, in the following language: Speaking of the evil effects of intemperance, he says: "The truth is bad enough without embellishments, and no great reformation is ever advanced by exaggeration." He complains that sensationalists have tried to arouse the public to this evil by stating, he proceeds, as the "chief argument adduced, that at least three-fourths of the insane become such from drunkenness. The opinions of distinguished medical men are quoted in support of this statement. Few statistics are given to substantiate this view. Anxious to reach the truth on this point, as far as the Toronto Asylum is concerned, every name and cause of insanity, since March 1st, 1873, to October 1st, 1879, have been examined in respect to cause, with the following results: My predecessor, Dr.

* Read at the Tenth Annual Meeting of the Texas State Medical Association.

Workman, carefully checked off all the admissions up to 1872, and the admissions of the years since that have been individually noted to the present time. Nothing has been left to guess work or averages."

"There were admitted into the Asylum, from July 1st, 1853, to October 1st, 1879, 3,837 patients. In that number, there were classified in their histories, temperate, 3,342; intemperate, 387; unknown, 108.

It will be seen that 9.48 per cent is the proportion of drunkards—reported as such—for this long period of over twenty-six years. It is no doubt true that among those in whom the cause is said to be unknown, are some who became insane from the immoderate use of spirits. Yet, as an offset, many are reputed to have become insane from drink, in whom this intemperance was the result of the disease, and not the cause, in any sense." This, the quotation from the above named report, I make it the occasion of bringing this important social evil before the Texas Medical Association, in a short study embodying some facts from my own observations during five years of asylum residence.

I shall accept the facts given in the statistics as true in sense, intended by the compiler, and then attempt to show that, in fact and reality, the results arrived at are wide of the truth, misleading. The last sentence in the above quotation, merits especial notice—"many are reputed to have become insane from drink, in whom this intemperance was only a result of the disease, and not the cause, in any sense." While true, from Dr. Clark's standpoint, and agreeing, substantially, with the opinion expressed by the writer, in the meeting of Superintendents of American Institutions for the Insane, held at Auburn, N. Y., in 1875, it is not true, "in any sense," as there is a sense, and it is, doubtless, the true one, in which it is not true, as will be more fully shown as we proceed.

From a careful inquiry into and a working up of all the cases admitted into the Texas State Lunatic Asylum, during the five years of my superintendency of this Institution, I am prepared to state, after having given the facts the most searching scrutiny, that, from basis of classification common in lunatic hospitals in this country and Europe, in something over two per cent of all the cases admitted, in which drunkenness was the "assumed" cause, it was the effect of the insanity, and not the cause of it. Yet, as will be apparent, it is believed, from facts to be submitted when the true test is applied, the intemperance was the cause, and not the effect, in most of these cases—not in all.

While, therefore, Dr. Clark is right from his standpoint—a view restricted to the individual insane—in a more enlarged one, taking in all the facts traceable, bearing upon the case directly and remotely, his statistics, and the conclusion deduced from them, misinterprets this whole subject. The object of this paper, its *raison d'être*, is to show that the usual method of classification, &c., the basis upon which statistics rest upon the subject, is vicious.

To come to the matter at once, the method complained of makes no account of the transmitted predisposition to the whole class of neurotic troubles, insanity with the rest, induced in progenitors, by intemperance. It admits of little doubt, but that in most of those cases charged up to the account of heredity, the improper use of nerve stimulants of one sort or another was the original predisposing cause. To what extent this statement is true, few, I am sure, would be prepared to believe who have not, as the writer has done, worked up a large number of these hereditary cases. He has surely been a most careless observer of the changes and phases of disease, who has been in active practice for

the last quarter of a century, and has not noted that neurotic troubles have, from year to year, been strangely on the increase, the tendency being to modify all other diseases. That there are other causes at work in our social life, besides the abuse of nerve stimulants, few would be disposed to question; still, it is believed that, after making all due allowance, this is the great *fons et origo mali*.

An analysis of statistics collected during the five years of my superintendence of the State Lunatic Asylum, shows there were 31 cases in which drunkenness was the assumed cause. A little examination into the history of the admissions soon raised the number, as shown by my private memoranda, to 78. It is the custom of lunatic hospitals, it may be observed, to set down in the rosters of admission, as the cause, the one given by the friends accompanying the patient to the Asylum or that set forth as such in the proceedings had under a writ *de lunatico inquirendo*, when the insanity has been made matter of legal investigation. This, of course, every superintendent receives *cum grano salis*, and forms his own opinion upon a quiet and leisure survey from all the facts accessible to him from his observation of, and intercourse with the patient himself as well as from inquiry of, and correspondence with friends and relatives.

Regarding it as lying at the foundation of all rational treatment and management of the insane, as well as all trustworthy generalizations upon the subject, during the whole of my residence in a lunatic hospital, I gave the closest attention to the etiology of insanity. In doing this and in the exercise of my best judgment upon the facts—and it was my custom to obtain all accessible to letter or inquiry—I was led, as already mentioned to raise the number assumed by friends at 31 to 78 as being much nearer the truth. It will cease to create sur-

prise that this should be so when it is remembered, that, in most cases, the friends will assign almost anything but the true one, as the cause when they think there is danger of reflecting upon the patient or his family. It is a fact familiar enough to all who have had to do with the insane, that it is only in exceptionable cases the relations of a case to be hereditary, however clearly it may be so, but will have recourse to almost any means of concealing the fact, even to the extent of assigning causes and incidents so trivial as to provoke a smile, did not one remember the amiable sympathy prompting their motives. But to return to the special subject in hand—the hereditary transmission of the effects of intemperance, and of abuse of other nerve stimulants.

I call your attention again to the statistics of the State Lunatic Asylum from February 10th, 1874, to April 19th, 1879, when I turned over to my successor. I found in the Asylum upon taking charge 115 patients. There were received during my superintendency 612—making a total of 727 I had under inspection. There were few of the 115 found as inmates of which much could be learned—being most of them old cases and their families inaccessible. Though their cases were worked up as best I could the results were so unsatisfactory, I leave them out of the account. In about one-third of the cases of admission, no cause was assumed—being tramps and other persons unknown in the respective communities from which they came; so that little could be ascertained in regard to their antecedents except what was obtained from themselves—not always very reliable. Even under this unpromising state of things, inquiry was not entirely barren of result. Upon a careful sifting of the data, there was what was regarded as good reason for the inference that the original cause, individual or transmitted, was the abuse of nervous

stimulants in about 22 per cent of their cases. In the other two-thirds, drink was the assumed cause in 31. A similar ferreting out, working up and sifting of facts, gleaned from the individual and family history, disclosed what seemed to justify the conclusion that the abuse of nerve stimulants was the most probable cause individual or inherited in 127, or about four-fold as frequent as was assumed—I say most probable, because in no case of insanity, with rare exceptions, can it be known with absolute certainty what the cause is. It is only by the exercise of the judgment upon the facts, as developed in each case, that the probable cause is reached. My conclusion, influenced by no sort of bias of which I am aware, was, and is, that he who should assume as the cause of insanity, remote or exciting, individual or transmitted, in one-third of all those occurring in this country, the abuse of nerve stimulants of one sort or another, in one way or other, would not, upon the whole, be far from the truth.

It but remains to state, that in arriving at the conclusion set forth above, the writer only set down to the account of this cause such cases as the information obtained in regard to parents, the antecedents of the individuals themselves or their observed neurosis or psychosis made it more likely that such was the true cause. That mistakes were made is morally certain, but it is confidently believed they were made rather in favor of, than against this abuse; and, the whole truth known, were this possible, would increase rather than diminish the victims of the abuse of nerve stimulants. In no case was opium or tobacco assumed as the cause except in that of a few persons whose family history or whose own neurotic or psychic condition rendered it more probable than any other supposition.

If, therefore, my observation extending over a duration of five years' residence within the walls of a lunatic hospital is to be taken as a trustworthy basis for generalization, I have no hesitation in announcing it as my conviction that not less than one-third of the insane population of Texas owe their condition immediately or remotely in their own personal habits or those of their ancestry transmitting a vitiated, depraved nervous organization, unequal to the strain of social surroundings and the duties of life—to the abuse above indicated.

And, it is believed, to be far from sufficiently dwelt upon, in dealing with this subject, that there is large evidence in innumerable facts meeting us on all sides in all the thoroughfares and relations of life that there are great numbers more of our unfortunate fellow-men who though they do not, because of more fortunate surroundings, break down into outright mental derangement so as to become unable to accommodate themselves to their social surroundings, labor under partial insanities which not only interfere with their usefulness and enjoyment, but which plunge them into dissipation and crime—these unfortunates in turn transmitting to their offspring a still more unstable, depraved nervous heritage, destined under less propitious auspices to break out into fully developed insanity.

M. CHRISTIAN ON NON-RESTRAINT.

The following is a translation of a paper read by M. Christian before the Medico-Psychological Society of Paris,* at a meeting held on October 25, 1880, under the presidency of M. Legrand du Saulle. Although the subject of which it treats has been repeatedly discussed in the pages of this JOURNAL, we need not apologize for presenting to our readers the opinion of so distinguished an alienist as M. Christian—an opinion rendered all the more valuable and authoritative by reason of its recent utterance and the expressions of approval which it elicited on the part of other members of the Society who subsequently participated in the debate.

GENTLEMEN: I know no more irritating question than that of non-restraint, for while the partisans of this method are regarded as ardent apostles of humanity, we, who remain faithful to what is called restraint, run the risk of passing for retrograde spirits, hostile to progress: a little more and they will have us the direct descendants of the torturers of the middle ages. On closer inspection, however, one is compelled to admit that, since the beginning of the world and the existence of suffering humanity, cases occur in which means of restraint must be employed. When a physician wishes to make an obstreperous child swallow a dose of medicine, he has it firmly held, and forcibly administers the remedy which is to afford relief. No surgeon begins an operation, however trivial in character, without having first rendered it impossible for his patient to move; and if in our day he is able to abandon the means of restraint which were formerly in current use, it is because he can place the patient entirely at his mercy by means of chloroform. Nay more: suppose, for instance, that in a medical or surgical service, a patient—and the case is one of frequent occurrence—who is the victim of fever and delirium, should get out of bed in the night, disturb his associates and put the

* *Annales Médico-Psychologiques*, November, 1880.

whole ward in disorder, do you believe that one would hesitate to fix him in bed, or, if necessary, apply a camisole? Indeed, families themselves, be their social status what it may, have no such scruples. When one of their members, under the visitation of disease, becomes boisterous, violent and dangerous, he is rendered incapable of self-injury by restraint—and with what gentleness this is applied, you may gather from the condition of the unfortunates who are brought to us covered with contusions and abrasions, and having on their ankles and wrists the visible traces of the cords with which they have been bound. Observe that in all these cases it is the safety of the *entourage*, the interest of the patient himself which demands the restraint. The madman must be prevented from injuring himself and others, and here we have a motive before which every other consideration must yield.

How comes it, then, that the moment the question has reference to physicians specially devoted to the care of the insane, the aspect of affairs is entirely changed? That which is freely permitted to the general practitioner, surgeon or obstetrician, is absolutely interdicted in the case of the alienist, for whom to apply the camisole on an insane patient, it becomes almost an outrage on humanity! We have here a psychological problem whose solution I will not attempt to discover.

Up to the reform of Pinel, insane persons were the objects of the worst forms of treatment—a state of affairs which was due to several reasons, but principally this: Inasmuch as none but the most boisterous and violent lunatics were shut up, it was thought that too great precautions could not be taken. They were kept in chains within narrow limits in infected cells. These madmen, ill-nourished and ill-clad, left to the care of ignorant and coarse keepers, were thus subjected to conditions best calculated to augment their maniacal excitement, which, rendering them more and more formidable, led to the fatal error of multiplying their chains and fetters. To Pinel belongs the glory of having shown that they were traveling the wrong road, that lunatics were patients, that they required gentle treatment, to be well-clad and well-fed, and that they were not to be consigned to dark cells, but lodged in well-ventilated and properly-kept rooms. “To keep,” says he, “excited patients in a constant state of seclusion and restraint, to abandon them, without defense, to the brutality of servants, under the pretext of the dangers these incur, to rule them, in a word, with a rod of iron, as if to shorten the term of an existence which is considered deplorable, is doubtless a very convenient method of surveil-

lance, but one which is well worthy of the ages of ignorance and barbarism; it is not less contrary to the results of experience," etc. (*Traité Médico-Philosophique de l'Aliénation Mentale*, 2e édition, Paris, 1809, p. 262). The essence of Pinel's reform is contained in the above few lines, and of its fruitfulness we may judge by the progress made since the beginning of the century. Whatever of good has been done had its origin in Pinel, and it is but right to bear this in mind, especially when Conolly's claims are opposed to those of the French reformer. It would seem as though everything had been attributed to the reform of Conolly. When the matter came up for discussion in France, a physician who worthily bore an illustrious name, Casimir Pinel, devoted to it a series of articles in M. Delasiauve's *Journal de Médecine Mentale* (1862), and reduced the subject to its true proportions. In point of fact, Conolly accomplished but one thing: he applied in England the principles which Pinel made triumphant in France nearly a half-century before. When, in 1839, Conolly undertook the direction of the asylum at Hanwell, nothing had been changed in the old system, with its damp cells, chains and manacles. He would have nothing to do with this past mode of procedure; the barbarous methods which Pinel had abolished in France at the close of the eighteenth century, Conolly caused to vanish in England in 1839. His bold initiative was an immense benefit to England, and sufficed to immortalize its author's name. But where Pinel had accomplished a manly and lasting task in confining himself within prudent limits, Conolly wished to make a *tabula rasa* and invent a new system. He imposed as an absolute rule the complete suppression of every means of restraint.

From the day on which Conolly applies his reform, all excitement disappears in his asylum; patients the least amenable to discipline, obey the gentle and firm voice of the physician as if by a charm; the attendants are all intelligent, faithful, of a patience capable of every trial. So true, indeed, was all this, that in order to ensure sleep, all that was necessary in the case of even the most excited patients, was to have them swallow a large glass of fresh water at bedtime! Gentlemen, when I read these things, written in good faith by a conscientious physician worthy of all respect, I bow my head in admiration. I am struck with the fact that in a latitude differing so slightly from our own, there are lunatics so entirely different from those which I have had occasion to observe; that among those English people, who do not exactly shine by

reason of their gentleness and mansuetude, there suddenly appears on the scene a corps of attendants so gentle, so patient, so long-suffering. But having admired, I examine and interrogate; and I learn that in all these asylums, so easy of management, a few ancillary means are nevertheless necessary. It may be a padded cell, in which the patient can be abandoned to himself without fear of self-injury; gloves like those used by boxers or fencers, which they apply to prevent him from injuring himself or others; or garments of a thick, substantial fabric, buttoned behind, and used to preclude their removal or destruction; or, again, they may envelop him in a sheet; finally and especially, it is surveillance, a surveillance exercised every instant by two, four, or it may be six of these model attendants, who delicately seize the patient in their robust arms whenever he becomes too boisterous, and, without struggle, without violence, have him glide into the padded cell. And these are not the only means: the lavish use (*larga manu*) of narcotics, such as opium, morphia and chloral, forms an essential part of non-restraint.

Gentlemen, I invent nothing. You know that non-restraint has had the good fortune to be acclaimed with enthusiasm, and that in England, in Germany, and in Switzerland, every one has desired to adopt, or has believed that he adopted, the system. The experience now extends over years, and it is very profitable to listen to the opinion of those who have applied the method.

M. Dagonet spoke to you, at the outset of the discussion, of the reaction which has begun in England, where the camisole is again in use in a certain number of asylums in which it had been severely proscribed. And shall I tell you what has become of non-restraint in Germany? Quite recently the German Psychiatric Society put the question on the order of the day. It was discussed at great length, a committee was appointed to examine it in all its bearings, and each member related what his individual experience had taught him. Read that discussion, and you will see with what lukewarmness Conolly's doctrine was defended. "I know no alienist in Germany," said Laehr, "who accepts non-restraint in an absolute manner. Nor is there any who voluntarily accepts means of restraint and applies them systematically." The case could not be better stated, and I venture to say that in France we are all of the same opinion. We avoid restraint as much as possible; but when it is imposed on us by force of circumstances, it is

our duty to apply it, for we have to protect the madman against himself, and ourselves against him.*

Conolly himself was unable to do otherwise, and to attribute to him the honor of a great discovery, is really to be satisfied with mere words. He only followed in the wake of Pinel, his agitation against the camisole being the only innovation on his part. Does the camisole merit the anathemas which have been heaped upon it? It has been said that it impairs respiration, that it obstructs the circulation, that it imposes a forced position of the upper extremities, that it readily causes sloughs at the elbows and shoulders. These charges do not date from yesterday, and they were refuted by Esquirol in his notes on Ellis.† If these charges were well founded, who of us, gentlemen, would dare continue the use of the camisole? But I am free to say that, in the asylums which I have the honor to direct, whether at Maréville or at Charenton, I have never observed anything of the kind. I use the camisole, but I use it as seldom as possible, and on an average I have never had two per cent of patients on whom it was applied. I say emphatically that when the camisole is well made, when it is cut from a soft and flexible material, when it is sufficiently ample, when, finally, it is only used on the physician's order and under his control, then not only does it not hamper the patient's movements, but it enables him to move about at liberty, and, if need be, he may be afforded sufficiently free motion of the arms and hands. If, in viewing the question from its sentimental aspect, you deplore the insult offered to manly dignity by camisoling a fellow-creature, let me ask if this manly dignity is not otherwise compromised by the fact of patients covering themselves with ordure, denuding and mutilating themselves, and striking those who surround them? Is this anything more than a piece of humanitarian sentimentalism? I may say that for me the camisole possesses one immense advantage—it prevents struggling between the patient and his keepers. Were this the only reason for retain-

* Do what we may, there will always be dangerous lunatics—there will be those who want to kill themselves, mutilate themselves, who will tear off their clothing, indulge in faecal self-defilement, and strike their associates or keepers. If kind words sufficed to calm them, do you suppose recourse would be had to restraint? Kind words, however, only produce this effect in the books; and even in that corner of Paradise lost called Gheel, when a patient becomes disturbed, he is restrained—he is chained.

† Ellis' *Treatise on Insanity*, translated by Archambault, with notes by Esquirol. Paris: 1840, p. 246.

ing its use, it would appear to me all-sufficient; for, do what we may, we shall never be able to recruit our attendants from a class other than one in which fisticuffs do not pass for an act of brutality, nor shall we ever succeed in inculcating that patience, that indifference to insult which we physicians only acquire by dint of reflection and a sense of duty. See, too, how many patients themselves ask to have the camisole applied when they feel the approach of excitement; they bear it no ill-will, whereas they readily conceive hatred for the keepers whom we constitute a body-guard never to lose sight of their charges. How often do we thus see engendered, as has been well pointed out by M. Voisin, delusions of persecution which render the patient intractable. That may all be true, you will say, but it is not less true that the camisole can be abolished, and the proof is that it has disappeared in a large number of asylums. I do not deny that. But I know also that before the law of 1838, there were but very few asylums, and that lunatics were for the most part allowed to be at large. Families did what they could or what they would, and the world did not come to an end. Will you deny, however, that the actual state of affairs does not constitute an immense advancement? You suppress the camisole—all well and good—but I persist in believing that you gain nothing by it.

I beg your pardon, gentlemen, for having occupied your attention so long. Permit me to finish with a last consideration. Since non-restraint has flourished, you have often had occasion to read how frequent have become, in English asylums, fractures of the ribs, ecchymoses and subcutaneous effusions of blood. The thing has become so common that the question has been raised, forsooth, whether the osseous system of lunatics is not more friable, if their blood has not a tendency to decompose. I do not know what foundation there is for this supposition; I only know that in France we have as yet seen nothing of the kind; I know that this singular alteration of the bones and blood only occurs in non-restraint asylums,* and, should I appear sceptical, I believe that the best prophylaxis will be to dispense with the gentleness of model attendants and return to the humane and reasonable use of the camisole.

Nothing could have been more gratifying to M. Christian, than the general acclamation with which his paper was received. It

* Lacher, Ueber die Knochenbrüchigkeit bei Psychischkranken in Allg. Zeitsch, xxxvii, I Heft, 1880, s. 72.

would seem, from the discussion which followed, that however averse Frenchmen may be to Conollyism in their asylums, they are, nevertheless, in matters of debate, body and soul, non-restrainers. To the congratulations of M. Blanche on the speaker's outspokenness of opinion, were added those of M. Delasiauve, who resented the charges of backwardness, made by their neighbors across the Channel, and disposed of England's pretentious claims to superiority. He mentioned a series of articles in the second volume of the *Journal de Médecine Mentale*, in which Casimir Pinel, without depreciating the merits of the illustrious English alienist, answered with an emphatic negative, the question, "is it true that the methods of treatment extolled by Conolly, differ, in essence, from our own, or that they are at any rate superior?" He made sarcastic allusion to the charges of "barbarism," and asked, granting that there are patients who must be restrained in some way or another, which was the lesser of the two evils—our "horrible" camisole, or "your padded cells lined with keepers, ready to put their hands on the maniac's shoulder?" Opinions differed, and they could be duly weighed. "But let it be well understood," he continued, "that non-restraint being the rule with us, as with our neighbors, the use of the camisole only applies to the very exceptional cases, where restraint is necessary." On a visit to Quatremares, he found, among from 550 to 600 patients, only from four to seven in camisoles, a result, he opined, which did not point to any inferiority on their part. In reply to M. Magnan, who, at the previous discussion, had congratulated himself on having adopted the English system, he stated the other side of his argument, that calm ensued on the suppression of the camisole, namely, that patients intractable in liberty, oftentimes cease to be so in the camisole, instinctively yielding, as they do, to the obstacle which they feel they can not overcome.

In joining his to the felicitations already bestowed, M. Lunier counselled moderation on both sides. He was of the opinion that, with a more numerous corps of attendants, the number of instances in which the camisole is employed, might be still further reduced. There ought never to be less than one attendant to every fourteen patients. He called renewed attention to the fact that in asylums where the camisole is not employed, other means of restraint, either mechanical or chemical, are in vogue, and corroborated M. Christian's remarks in reference to the enormous consumption of chloral and bromide of potassium in such institutions. The complete suppression of the camisole seemed to him an impossibility,

but he should not the less applaud the very praiseworthy efforts which were making, whether to limit its use or with the object of discovering better methods of restraint.

M. Lasègue cited two cases, one of which, he thought, showed the advantages of the camisole, and the other its drawbacks. In the one instance, the patient's friends, horror-stricken when the camisole was suggested, themselves subsequently bound the maniac with ropes, and in such a manner that his wrists still bear marks of the restraint. The second case was that of a typhoid fever patient, in a general hospital, who was clumsily camisoled by a nurse, and found dead on the following morning. M. Blanche judiciously observed that a nurse should never be allowed to apply a camisole without a physician's authorization.

M. Foville fully endorsed the paper. He would only observe, in reference to osteomalacia in paretics, that his opinion differed from that of M. Christian. He concluded, from what he had read in English journals, and corroborated by individual research, that the osseous tissue, as a rule, underwent certain changes in paretics, whereby it was rendered more friable, the simple pressure of the finger, often sufficing to break the ribs in the cadaver. In one of his autopsies, he had seen fractures of the neck, in three successive ribs, the existence of which had not been observed during life. It was true that this condition was not apparent in all paretics, but more especially among such as present trophic disorders. The speaker also reminded M. Christian that he was not altogether correct in stating that Conolly only did in England what Pinel had done in France, at the close of the eighteenth century. In reality, a first attempt at reform, little known in France, had been made by William Tuke, at York, about the time that Pinel effected his.

M. Motet had a short time ago received two pamphlets from the late Dr. Lauder Lindsay on the subject under discussion. These showed that coercive measures were no less abandoned in England than with themselves when necessity imposed their use. Moreover, the English Lunacy Commissioners had borne testimony to the skill, zeal and humanity of physicians who used mechanical restraint, as well as to the successful management of their asylums. Such attestation should, to quote Dr. Lauder Lindsay, "once for all, explode the absurdities and tyrannies of Conollyism, by demonstrating that the most humane and experienced physicians in England consider the *most humane treatment* of the insane, in certain exceptional cases, to be mechanical restraint."

M. Motet referred to Dr. Lindsay's other pamphlet, entitled "Rib-Fracture in English Asylums," in which the conclusion was stated that the real offenders were not so much the poor, defenceless attendants, as the promulgators of the "absurd and mischievous dogma that in *all* cases mechanical restraint is unnecessary and improper."

M. Christian said, in replying to M. Foville's strictures, that he did not deny the possibility of alteration of the bones in certain cases of general paresis. He believed, however, that its frequency had been exaggerated, and, for his part, he had never observed the condition. As regarded the historical question, he had not wished to discuss it. In reality, the question of non-restraint dated only from the invention of the word by Conolly.

M. Magnan, the only non-restrainer present, having been asked by the President if he had anything new to add to his remarks made at the previous meeting, replied that he always used non-restraint in the widest sense, and that he had for it nothing but praise. He claimed as advantages for the system, that it tended to diminish the period of excitement, and modified the standing of attendants and their conduct toward patients. All the inconveniences which were alleged to belong to the suppression of the camisole, amounted to nothing in practice. He himself had misgivings at first, and did not attain his present position at one bound, having begun by swaddling his patients (*maillot*). He had not used a camisole for two years.

At this juncture M. Dagonet suggested the utility of M. Magnan's being enabled to take cognizance of M. Christian's communication, [he had arrived late] with a view of replying to the arguments therein developed; whereupon,

M. Christian said that the question of non-restraint might be summed up in two words: there were patients whom it was necessary to restrain in one way or another, and in his judgment the best known means was the camisole.

M. Magnan maintained that patients became more excited when in a camisole; that when they arrived at the asylum camisoled, they became quiet or less disturbed as soon as the restraint was removed. "It is certain that since I no longer use the camisole, I no longer observe maniacal furor."

The PRESIDENT (Legrand du Saulle). Then incoercible maniacal furor depends on the imposition of the camisole?

M. MAGNAN. In great part.

M. DELASIAUVE. But you always use some sort of restraint?

M. MAGNAN. The means of restraint is not one—it is a simple *maillot de bain*.

The PRESIDENT. And in cases of maniacal furor, where the camisole is of service, you do not use mechanical restraint?

M. MAGNAN. I have already said, and I repeat it, that since the suppression of the camisole, I hardly ever see any cases of maniacal furor.

M. Voisin insisted that, in the absence of the camisole, it was impossible to apply certain therapeutic measures.

M. MAGNAN. The suppression of the camisole interferes in no wise with the treatment of patients.

M. Voisin had especially in view revulsives, such as blisters, the cautery, moxas, etc.

M. Magnan pledged himself to retain a seton or moxa, or to use the cautery, in any patient whatsoever, without applying the camisole.

M. LUNIER. To sum up, we are all in accord as to the principle, but we differ as to its mode of application. In reality, the most confirmed advocates of non-restraint use means of restraint, such as padded cells, covered baths, etc. The absolute suppression of all restraint is, therefore, Utopian. As far as I am concerned, I have greater confidence in the camisole as a means of restraining certain patients, than in surveillance and the patience of attendants.

M. Foville spoke of a visit to a Swiss non-restraint asylum, in which he had seen, about two o'clock in the afternoon, a patient completely nude and covered with ordure, shut up in a padded cell. He inquired what the practice was in M. Magnan's asylum in similar cases occurring in the night.

M. Magnan replied that in such cases, whether occurring night or day, the attendants had orders to wash and reclothe the patient.

M. Blanche moved the appointment of a committee which should study the question of non-restraint. The motion having been carried by a feeble majority, the following were elected committeemen: MM. Blanche, Magnan, Voisin and Falret.

NOTE ON FEIGNED EPILEPSY.

BY M. G. ECHEVERRIA.

The valuable paper on "Feigned Epilepsy" read by Dr. Carlos F. Macdonald at the last meeting of the Association of Medical Superintendents of American Institutions for the Insane, and the interesting discussion to which it gave rise, move me to bring before the readers of the JOURNAL, the simple process that I have for a long time employed to detect simulated attacks of epilepsy.

Attentive examination of the pupils of an epileptic after seizures of *petit mal* or *grand mal*, discloses an alternate dilatation and contraction of the iris, persisting for over a minute after the patient's return to consciousness. This epileptic pupil is also conspicuous during the paroxysms of mania, at those moments when the patient suddenly becomes stupefied for a few seconds, staring with eyes wide open and fixed; it again betrays the dubious forms of psychical epilepsy, and, above all, furnishes, even to those most inexperienced with the malady, a sure means of differentiating, in a ready and easy way, true from feigned attacks. Again, if we cover with a handkerchief or towel the nostrils and mouth of an epileptic, at the moment that he is seized with a fit, this continues without change, because the obstacle thus put to breathing does not materially interfere with the asphyxia characteristic of the initial stage of the convulsive paroxysm, upon tonic contraction of the thoracic muscles. This process, on the contrary, at once determines in the simulator a *besoin de respirer*, with inev-

itable suffocation and struggles, which discloses the best studied imposture. It happens, however, with certain cases, and mainly in incomplete seizures, that the impediment to respiration quickly suspends them, but then, a phenomenon impossible to simulate always takes place, demonstrating in a no less positive manner the real nature of the attacks. This phenomenon is, once more, the convulsive contraction and dilatation of the iris, or the epileptic pupil, which, as already stated, may recur for more than a minute before it entirely disappears, and which becomes very remarkable when the eye is exposed to a bright light.

These important convulsive movements of the iris were first pointed out by T. S. Clouston, in his most able and original paper on the "Bodily Symptoms of Insanity," in the *London Practitioner*, Vol. VII, 1871. The constant association of the epileptic pupil with the various kinds of fits, as well as its pathognomonic value in the mental attacks of epilepsy, are set forth in my contribution on "Epileptic Insanity," to this JOURNAL, July, 1873, and, subsequently, I have alluded to this sign on noticing the process here described, in my communication on the "Clinical Aspects of Epileptic Insanity," read at the International Congress of Mental Medicine, at Paris, in August, 1878, and in my paper on "Nocturnal Epilepsy," read in December of the same year, before the Medico-Psychological Society of Paris.

BOOK REVIEWS AND NOTICES.

Thirty-third Report of the Commissioners in Lunacy to the Lord Chancellor; presented according to act of Parliament, and ordered printed, August, 1879, by the House of Commons.

The Board of Lunacy Commissioners for England and Wales consists of twelve members, Lord Shaftesbury being the Chairman, and C. S. Perceval, Esq., the Secretary. The formidable Blue Book before us contains their annual report for 1879; and the various appendices review the statistics and condition of each of the several institutions throughout the realm very much as the same matters would be presented in the reports of the Boards of Managers of the various asylums in our own country.

The whole number of "registered lunatics, idiots and persons of unsound mind" for England and Wales on the 1st of January, 1879, is given as 69,885—male, 31,683; female, 38,202. We find nothing in the report to distinguish the precise number of "idiots and persons of unsound mind," or imbeciles, from the number of the insane proper, though we find in the list of hospitals and licensed houses several institutions designed for idiots and quiet, harmless persons, of which the statistics are given in their order of review. The form of medical certificate includes all three specifications, according to law, of lunacy, idiocy or unsoundness of mind, to be committed to one and the same care—a point as to which the statutes of New York have made great improvement by keeping each class distinct.

Of the whole number as given above, there were in county and borough public asylums 38,395 pauper patients and 476 private patients; in registered hospitals, 2,720 private patients and 117 pauper; in licensed

houses (proprietary institutions) there were 3,535 private patients and 1,110 pauper. The remainder are distributed among naval and military asylums, whose patients are all classed as "private," the criminal asylum at Broadmoor, which shows a total of 483, 109 of them females, and work-houses, in which there are 16,005 pauper. There are also 6,230 "outdoor" paupers registered as insane cases, and there are 472 "private single patients" boarding out or under individual medical care. Not included in the above are also 202 cases of lunacy so found by "inquisition," and residing in immediate charge of their committees.

In England there is no such distinction as in New York between "indigent" and "pauper," the latter term including all patients supported "wholly or in part" at the expense of parishes, unions, counties and boroughs. Those in the military, naval and criminal asylums, 957 in number, being reckoned with the "private patients," it will be seen that the grand total stands as follows: 7,778 private patients and 62,107 paupers. The increase over the numbers of the previous year (1878) was 86 of the former class and 1,261 of the latter, which is considerably below the average increase of the previous ten years, which is stated to have been 1,753 of both classes. Of this pauper increase, 380 cases are said to belong to the number in the licensed houses, a fact which is stated by the Commissioners to be due to the insufficiency of public asylum accommodation, especially in the counties of Essex and Surrey, where new institutions are recommended by the Board.

A large number of tables are given with this report, covering every feature of the subject that can well be made a question of statistics, showing an immense amount of labor. As the Commissioners state, "The

tabulated information has reference to occupations or social position, sex, age, and condition as to marriage, and to the proportion which the patients under several heads bear to the corresponding groups and the general population." The tables also show, with regard to these admissions, the form of mental disorder, the cases of first attack, the number affected with epilepsy, with general paralysis, and laboring under suicidal propensities. The causes of insanity, so far as could be ascertained, are also shown, both as to the aggregate of these admissions, and as to the private and the pauper class respectively. Further, as regards those patients suffering from general paralysis and having suicidal propensities, special tables are arranged, giving the sexes, ages, condition as to marriage, and the causes of insanity. These general summaries are followed by a detailed series of tables, containing the materials from which the summaries were compiled, and giving the principal facts as regards individual, county and borough asylums and certain groups of hospitals, state asylums and licensed houses.

One valuable point in these tables not heretofore attained, is the exclusion of all "transfers" and "re-admissions" in the various calculations affecting the question of the real number of the insane, and also the exclusion in the summaries of hospitals and licensed houses, at least, of all institutions devoted exclusively to idiots and non-curable cases, in estimating various results and percentages not affected by such cases.

The grand summary shows the total number of patients in all the institutions and under private care, January 1, 1879, as 47,650, of which the private patients numbered 4,187 males and 3,591 females, the rest being pauper. The total admissions for 1878 were 15,102, of which 1,532, or 10.14 per cent, were "transfers," and

1,726, or 11.42 per cent, were "re-admissions," leaving 11,844 as the number of new cases. The patients discharged and transferred were 8,796. The deaths for the year were 4,715, of which 2,689 were of males, 2,026 of females. The Commissioners remark in regard to the relative statistics of the two sexes: "The results obtained by distinguishing the sexes in these tables confirm the opinion already generally entertained that, as compared with the population, insanity, congenital and acquired, is somewhat more frequent among males than females. The extent to which it appears to be more curable among females, and the degree in which it is more fatal among males, are also shown. It will be seen that, although the rate of recovery is higher among females than males, the mortality is so much greater among the latter than the former, that the females largely preponderate over the males in the total number under care."

Of the average number resident in asylums during 1878, it appears that the females numbered 25,062, while the males numbered 22,078. As to the distribution of patients in asylums, workhouses, etc., the tables show that 38,871 were placed in the county and borough asylums, 2,837 in registered hospitals, 2,476 in metropolitan licensed houses, 2,169 in provincial licensed houses, 342 in naval, military, &c., 483 in Broadmoor asylum for criminal lunatics, 16,005 in work-houses, &c., and 6,702 were residing with relatives or others. The total ratio of lunatics to population in 1879 was 27.77 per 10,000, against 18.67 per 10,000 in 1859, which does not necessarily denote so much an increase in the proportions of insanity and idiocy, as a more complete provision for all. There has been a gradual increase in the proportion admitted into public institutions, and a corresponding decrease in those kept in workhouses or with relatives. The

Commissioners say, in regard to this: "The experience of another year has confirmed the opinion already expressed in previous reports that the Parliamentary grant of 4s. per head per week, made to the Guardians towards the cost of every lunatic maintained in an asylum, has, in many districts, tended to promote the removal of chronic cases from workhouses and from private dwellings into asylums, and thus, in some counties, it has contributed to render necessary a considerable extension of asylum accommodation."

Another curious fact shown by the tables is that the percentage of pauper lunatics to the total pauperism of the country is 7.71, while the total percentage of paupers to the whole population is 3.19. The distribution of the pauper lunatics is as follows: In county and borough asylums, 36,627; in registered hospitals and licensed houses, 1,303; in work-houses, 16,005; residing with relatives or others, 6,230; chargeable to county and borough rates, 1,894; total, 62,059. To take up the different classes of institutions separately, it appears that there were in the county and borough asylums, January 1, 1878, 17,161 men and 20,647 women; admitted during the year, 5,807 men and 5,797 women. There were discharged, including transfers, 2,992 men and 3,479 women—of whom 1,827 men and 2,420 women were recovered. The deaths were 2,253 men and 1,772 women, leaving on January 1, 1879, in the institutions, 38,871 insane, or 17,678 men and 21,193 women. The appendix of the report shows there are 49 county and 8 borough asylums, and new asylums were projected in Essex, Surrey, Gloucester, Lancaster and the borough of Hull, while in various institutions enlargements and additions were going on.

The numbers of insane gathered into some of these county and borough asylums is very large. In Middle-

sex, Banstead contains 1,603 patients; Colney Hatch, 2,073, and Hanwell, 1,820. Of these pauper patients, there are nearly twice as many women as men. In Surrey, the institution at Wandsworth contains 1,000, and that at Brookwood, 1,012. The Sussex Asylum has 1,790 patients, of whom only 29 were private. At Wakefield, in Yorkshire, there were 1,398, and at Wadsley, 902. Barming Heath contains 1,209, with only 6 private patients. The four asylums in Lancashire have a total of 4,173 patients, all paupers.

The registered hospitals are 16 in number, with 2,837 men and 1,422 women, 1,298 private patients, and 69 men and 48 women paupers. There were admitted to all these institutions during the year, 1,940; discharged, 1,705, of whom 351 were recovered; deaths, 176. It would appear that there were only 117 pauper patients in all these registered hospitals. The Commissioners note that although the charitable element might not prevail in these institutions to the extent contemplated by their originators, yet several were doing good work by affording suitable provision at low payment for the insane of the middle classes.

Bethlehem Hospital receives and treats all patients gratuitously, being a royal foundation with large revenues, and confines its work mainly to acute cases. The institution has a small convalescent establishment at Witley, surrounded by ten acres of land, which will accommodate 25 men and 8 women. The Commissioners report Bethlehem as having accommodation for 290 beds, and remark: "The beds filled are 193 only, at present, excluding the 30 patients temporarily at Witley who will return to London next month. During the year there were 201 admitted and 221 discharged, of whom 101 were recovered." The Commissioners remark that the general aspect of the interior of this oldest

hospital exhibits constant progress in being brought up to the standard of modern asylums. The basement wards, however, they considered so defective in original construction as to lead them to express the wish that they could be closed. They also say: "We are glad to hear that the trough bedsteads in the men's ward, No. 1, are about to be got rid of; and another improvement would be the substitution of low bedsteads for the use of some of the patients now sleeping on the mattresses upon the floors of single rooms." The Commissioners refer with satisfaction to the fact that the wards in this hospital "are made available for medical students who are desirous of acquiring a practical knowledge of mental disease in its earliest stage, and trust that this valuable aid to science will be continued." The importance of clinical instruction in this branch to medical students can hardly be overestimated, especially to those who contemplate entering institutions for the treatment of the insane. It would seem that the convalescent establishment is used only in the summer months, as the Commissioners refer to the fact that at their visit on the 30th of September, the patients were on the eve of their return to winter quarters in London.

In the licensed houses, both metropolitan and provincial, there were 2,260 men and 2,385 women. Of these, 3,535 were private and 1,110 pauper patients. A large number of the persons confined in these institutions are idiots. The charges are regulated according to the accommodations and style of living, and range all the way from £100 to £330 per annum, and in one reach £470.

The report gives considerable attention to a review of cases of suicide in various institutions, in some of which deficiency of attendants is mentioned, but no

reference is made, in connection with the circumstances related, to the practicability of limiting these casualties by the judicious use of restraint.

The Commissioners report 333 work-houses which receive chronic insane, and contain a total of 13,270 persons of unsound mind supported by the poor rates.

One feature of the English system which the statutes do not permit in this State, is that of "voluntary boarders" in asylums, where persons may enter themselves without certificate of unsoundness of mind, their stay in the asylum being "entirely their own wish." We have annually at Utica a number of applications from persons who, feeling themselves unbalanced in mind to a certain degree and impaired in health, apply themselves, or through their friends, for admission to the asylum. We have had twelve such applications within the past year, all of which we have been obliged to decline.

In view of the criticisms and severe comments passed upon the lunacy system of England by the volume of Dr. Bucknill, recently reviewed by us, and the testimony given before the select committee of Parliament, which we have also summarized in this JOURNAL, we reproduce here the opinions of the Lunacy Commissioners upon this subject. They say:

"A good deal of unfavorable comment has lately been made upon the licensed houses and their proprietors, both before the select committee of the House of Commons (whose report we shall have occasion presently to notice) and elsewhere. Some witnesses called by the committee went so far as to 'urge the immediate abolition of all such houses, on the ground of the temptation to keep profitable patients longer than necessary.' A system which places the insane in charge of persons who derive profit from their detention, is no doubt objectionable in theory; and in practice (like many other things) may be open to abuse. But so far as regards the licensed houses in England and Wales, which alone

come under our observation, we are convinced that under the strict supervision and the safeguards which the lunacy acts provide, no such abuses are possible as have been in some quarters seriously alleged, such as the 'incarceration' of sane persons, or the prolonged detention for corrupt motives of insane persons who have entirely recovered their reason. Nor are the proprietors of licensed houses open to the sweeping charges of dishonesty and self-seeking which have been brought against them as a body. It should not be forgotten that these persons to some extent are competing with each other and with hospitals in a business which, to be remunerative, must be conducted on principles of ordinary prudence and common honesty.

Moreover, in the vast majority of cases (admitting that instances to the contrary might possibly be found), the speedy cure of an insane patient is, on pecuniary, if on no higher grounds, an object of the greatest importance to the persons with whom it rests to decide where to place him under treatment, and every cure that can be shown becomes in fact the best advertisement of the establishment in which the cure is effected.

Our own opinion is that the licensed houses supply at present a social want; and that their abolition, without the substitution of other and better establishments, would assuredly multiply cases of illegal charge and consequent neglect and ill-treatment of lunatics, and would also lead to the clandestine removal of many such persons to foreign parts.

Were asylums for the reception of private patients erected at the public cost, we doubt whether such institutions would be more acceptable to the friends of wealthy patients than the hospitals now registered under the lunacy acts, which do not receive many lunatics of large fortune. What these substitutes should be, is a matter of more difficulty. Certainly, the experience of past years does not show any disposition on the part of the public to increase the number of institutions such as the present hospitals, founded on the principle of 'applying the excess of payments of some patients for or towards the support, provision or benefit of other patients.'

These views, it will be seen, are much in accordance with the conclusions of the select committee, appearing in page sixth of their report."

Of the "single patients," there were registered, January 1, 1878, males 188, females 286; registered during

the year, males 77, females 99; discharged during the year, males 55, females 85, of which the recoveries were, males 6, females 14, and deaths, males 18, females 20; 135 of these lunatics were so found by inquisition, and ordered by their committees into unlicensed private care, but notified to the Commissioners.

In regard to boarding out patients in private houses, the Commissioners say :

“The removal of a large number of chronic lunatics from hospitals and licensed houses, with a view of placing them in private abodes, has been occasionally advocated as a measure likely to be advantageous to the patients. There may be many cases now in establishments for the insane no longer needing active treatment, or very constant supervision who might receive sufficient attention and care at their own homes, in charge of their nearest relatives, if these were able and willing to receive them; but as to ‘single charge’ by strangers, all our experience goes to this, *that although in favourable circumstances patients so placed are made happy and comfortable, yet that a large number of them are less well-looked-after, and are not better satisfied with their position than they would be in an asylum or other institution.*—(The italics are ours.—Eds.)

The fact is that persons really well-qualified to take charge of the insane, and willing to do so for a pecuniary recompense, are comparatively few; fewer still are those who would accept such charge at the low rates often current in licensed houses and hospitals, where not only do the poorer patients participate as a matter of course in many luxuries provided for the richer, but where both rich and poor can be maintained and treated at less cost than singly by reason of their aggregate number.”

The Commissioners congratulated themselves on the conclusion arrived at by the select committee of 1877, that under the present system of administration of the lunacy laws, “no allegations of *mala fides* or of serious abuses had been substantiated,” although they endorse the suggestions made by that committee, that the various existing lunacy acts should be consolidated.

The Lord Chancellor (to whom the Lunacy Commissioners render this report) has the matter in charge at the present time. The Commissioners go on to suggest some modifications in minor points such as the form of medical certificates, the order of reception in which they think that the signer should undertake to visit the patient at regular intervals, and that in the case of paupers notice should also be given to a justice, and that the admission of a private patient on the mere certificate of his relatives should be prohibited. The medical certificates required under the English laws are not nearly so well guarded as those in some of the United States and especially in the State of New York.

The appendix to the parliamentary report already spoken of quotes this part of the statute of New York of 1874, pertaining to the certificates of the physicians, their qualifications, &c., and speaks of this statute as especially careful in guarding against improper commitments, and calls attention to the fact that "in no other State besides New York is the approval of a court in regard to medical certificates necessary."

In tabulating the ages and civil condition of 10,433 patients in county and borough asylums in 1878, 136 were under 15; 544 between 15 and 20; 2,086 between 20 and 30; 2,561 between 30 and 40; 2,143 between 40 and 50; 1,460 between 50 and 60; 996 between 60 and 70; and 507, 70 and upwards. In the same number it appears that 4,183 were single persons; 4,920 married; 1,249 widowed, and 81 "unknown." The same ratio holds pretty nearly in the other institutions, except that there is a larger proportion under 15 in registered hospitals and licensed houses. It is found also that the proportion of *Suicidal* patients to the whole number of admissions is on the average of all the institutions 28.6 per cent, or

24.6 for the single, 32.5 for the married, and 28.7 for the widowed. The total number of *General Paralytics* admitted into all the institutions during 1878 was 1,141. (921 men to 220 women), or a proportion of 8.6 per cent on the total admissions. Of these 206 were single, 819 married, 107 widowed, and 9 unknown. As to the forms of disorder, out of 13,309 patients admitted in 1878, the cases of mania were 7,165, (1,587 suicidal); melancholia, 2,873, (1,731 suicidal); dementia, 2,397, (401 suicidal); congenital insanity, including idiocy, 727, (56 suicidal); and other forms of insanity, 147, (34 suicidal). It will be seen the suicidal patients foot up 3,089, (male, 1,782; female, 2,027). Both in suicidal cases and those of general paralysis, the same causes seem to be chiefly predominant in the figures, to wit: of *moral* causes, "domestic trouble," "adverse circumstances" and "worry and over-work;" of *physical* causes, intemperance, accident, or hereditary influence. Of the whole number of insane, the first moral cause is credited with 6.8 per cent; the second, with 5.2 per cent; the third, with 5.9 per cent; the first physical cause, with 14.6 per cent; the second, with 3.1 per cent; the third, with 17.5 per cent; the rest being divided among a long list of which "previous attacks" has 13 per cent, and 22.8 per cent are "unknown."

There are some general observations, however, that naturally arise from these successive reports of the English Lunacy Commissioners. It is clear enough that this body has generally been composed of men of great practical judgment, and is, therefore, a conservative body, in the sense that they are never willing to risk the good already attained by running into radical measures that always reach further than they were intended; nor are they disposed to launch out into wholesale condemnation of a system on account of a single

evil discoverable in it, instead of applying the necessary remedy in that particular case. In this respect, they furnish a wholesome example and model for all visitorial bodies.

It is noticeable, too, that they desire no special investment of powers, but have rather held themselves consistently throughout as an *advisory board*. In the recent Parliamentary inquiry into the subject of the lunacy laws in their bearing upon the "liberty of the subject," Lord Shaftesbury, Chairman of the Commissioners, was asked the question, if that Commission did not really need more *power* to carry out their visitorial supervision, and he replied:

"We, in visiting asylums, have no power at all; we have only to examine and report. And it is very undesirable that we should have further power. It would only cause a great deal of bad blood and opposition, and I am sure that the success we have had with the county asylums, has been entirely because we have done everything by persuasion, by the force of experience and constant observation, and we have never exercised any authority. We have never had any to exercise, and it would be most inadvisable to give us authority."

So, too, of the question of restraint or non-restraint so much mooted at the present time. Whatever impressions may have been industriously circulated, in some quarters, on this subject, it is a fact that the English Lunacy Commissioners have not undertaken to lay down "non-restraint" as an accepted dogma or doctrine to be enforced. They do not seem to have gone beyond the point of urging the *minimum* of restraint; which simply recognizes the obvious truth that restraint is not a positive thing to be desired or advocated by anybody for its own sake, any more than insanity itself is; but is rather a negative, exceptional thing, to be resorted to only in case of necessity, to prevent far greater evils than the restraint itself can be.

Any one who reads the Annual Reports of the English Lunacy Commissioners must have been struck with their moderation on this subject. No public clamor or agitation has changed their course or drawn them into extreme views or discussions. The chairman, Lord Shaftesbury, who has held that position since the creation of the board in 1828, and has since personally witnessed the steady development of the system of hospital care of the insane in Great Britain, has, perhaps, more than any other statesman, living or dead, given dignity and strength to this cause, by his wise counsel and persistent personal labors in the organization of the lunacy system. He has had the rare quality of holding himself in harmonious unity of action with the views of the best medical men, so that his and their best labors have not been mutually antagonized by the intrusive fancies of well-meaning reformers or the superficial views of malcontents. At a meeting of the British Psychological Society in October, 1880, in London, in reply to a toast proposing the health of his lordship, after briefly referring to his connection with lunacy work since 1828, and the condition of the insane then, and the great work that has been since accomplished, he made reference to the public agitation in regard to the insane, and the restriction of their liberties, and mentioned the fact that the Parliamentary committee recently sitting had discovered no cases where patients were confined "without good and sufficient reason for their being shut up," and added :

"Now, at the present time, there is rather a tendency in another direction—a tendency which ought to be rather checked ; because, recollect, we who are in charge of the legal duties in regard to lunacy, must consider not only the interests of the insane, but also the interests of the public. [Hear, hear.] We must be very careful, indeed, how we hastily let loose upon the public persons whom we are not quite certain have been restored to the power of

self-control. The tendency now is to let out everybody who is shut up, and henceforth to shut up nobody at all. Now, every advance which you make in your great and important duties, is a step towards the removal of the most profound affliction that has ever been permitted.

I can conceive of nothing more sublime and more Christianlike than the institution and application of these studies, and, though there were in former times great instances of cruelty and abuse, my experience in various asylums—private as well as public—is not only favourable to the highest order of intellect, but to the truest and deepest sentiments of humanity towards the poor creatures who are there confined.”

All this is in strong contrast with the foolish, and one could almost say in some instances malignant misrepresentations, too current on this side of the water, emanating mainly from persons who undertake with little or no experience to guide the public mind on this subject, and to pass judgment upon State Boards of Managers and other visitorial bodies in this country.

We have taken pains to examine the Commissioners' Report of 59 of the English county asylums, including such large establishments as Colney Hatch, Hanwell, Wakefield, Whittingham, Prestwick, &c., all of which contain a large proportion of chronic patients. These 59 asylums contain 38,658 patients. In 48 of them the Commissioners report 3,598 recoveries, in 6 of them they do not mention the number of recoveries of those discharged, and in 5 make no reference to the discharged patients.

Of the 59 asylums the Commissioners report 46 as using seclusion, and they enumerate 4,958 cases or occasions of seclusion which would seem to be the most frequent mode of restraint or confinement for excited and destructive patients. In one institution where seclusion is reported, the Commissioners found a patient locked in a single room, which the asylum authorities

declared was not seclusion, "they only reported seclusion when the shutter of the window was closed as well as the door." It is hardly necessary to say the Commissioners did not agree with this definition. In one institution besides seclusions "12 persons had been wet-packed for surgical reasons and excitement and restlessness." Wet and dry packing and the shower bath, all seem to be resorted to on occasion in several of the institutions.

The Commissioners report 337 cases of the use of the shower bath in one institution with 689 patients.* Of another institution the Commissioners say:

"The question of having unlocked doors in the asylum appears to have been under discussion here. Where so many lunatics, a large percentage being suicidal or dangerous to others, are congregated, we can not approve of a project which appears to be attended by so much risk without corresponding advantage."

Chimerical experiments of this kind seem to find no favor with the Commissioners.

Topische Diagnose der Gehirnkrankheiten, eine klinische Studie,
Von HERMAN NOTHNAGEL. Berlin: 1879. Hirschwald.—(Topical Diagnosis of Diseases of the Brain).

The work before us is an attempt to erect, upon the basis of clinical experience and *post mortem* appearances, the symptomatology of localized foci in the cerebrum. The author, for this purpose, has carefully sifted the material bearing upon this subject, which has been published in medical literature. He excludes from consideration all that is found defective, either in the clinical history or in the autopsy, or in which the clearness of the picture drawn by the observer, appeared impaired by additional vague speculations. It is the author's aim

* This sounds strange when we remember the *Lancet's* violent denunciations of the "hideous torture" by the shower bath in American Asylums.

to bring face to face, without further comment, the observation at the bed-side and the autopsy, and he purposely abstains from all physiological interpretation of the facts observed, even where the circumstances would almost seem to demand the drawing of conclusions.

The cases which are prominently the object of discussion, are: foci from hæmorrhages, from emboli, from thromboses, and exclusively those in which the affection was:

1. Of a chronic, stationary character.
2. Wholly limited and circumscribed.
3. Of no influence upon the parts surrounding the lesion, neither by pressure, nor by the production of circulatory disturbances or of inflammatory processes.

The author wishes to have excluded from consideration, the "recent" cases, on account of the mixed character of the symptoms, which they at all times present in the beginning. He determines a period of at least from six to eight weeks after the attack as the time when the parts indirectly affected by the lesion, can be considered as restored to their normal condition. He accepts further, in the main, Hughlings Jackson's division into *destroying lesions* and *discharging lesions*, of which the latter are especially characterized by symptoms of irritation and convulsions, which, when distinctly confined to certain groups of muscles, may likewise be useful for a local diagnosis. These cases, however frequently connected with the occurrence of tumors in the encephalon, are like the latter, in general, designated as the most liable to give rise to errors in diagnosis. Other forms of cerebral diseases which may occasionally be found to some degree circumscribed, especially the sclerotic and atrophic processes, do not come into consideration, as they are affections generally of a progressive character. Whether progressive bul-

bar paralysis belongs here or not, is a question which the author leaves undecided.

The work itself is divided into two parts: I. Special Symptomatology. II. Review of the Focus Symptoms.

In the first, by far the larger half of the book (534 of the 613 pages of the whole), Dr. Nothnagel gives, in detail, the symptomatology of the following parts of the encephalon: Cerebellum; crura cerebelli; pons Varolii; medulla oblongata; pedunculi cerebri; corpora quadrigemina; thalami optici; corpora striata; centrum ovale; cortex cerebri; cornu ammonis; claustrum; capsula externa; ventricles; basis cranii; glandula pituitaria; aneurism of the basilar artery.

Under each head we find, first a description of cases, arranged into groups, viz: recent hæmorrhages; stationary hæmorrhagic foci and abscesses; tumors; they are all accompanied by critical remarks. Secondly, an analysis of the observed facts, and thirdly, a summary under the title of diagnostic principles. An abstract of any value, of this part of the book, can not be given, as it will become a standard work for every one interested in the subject, and for all future investigations. Even the diagnostic principles, appended to each chapter, can not rightly be apprehended apart from a close study of the author's analysis of the symptoms. As the general result, however, it is to be stated that no single characteristic symptom for any special lesion of any special part can, at present, be given. The only trustworthy guide in this obscure field of medical diagnosis, in a given case, is the coincidence of certain marked symptoms, or of peculiar groups of symptoms. Yet, even then the local diagnosis is made with the greater difficulty, the higher in order the parts are which are supposed to be affected.

In regard to those morbid phenomena which would be of the greatest interest to most of our readers, the psychical or intellectual disturbances, the book is silent throughout. No evidence whatever has, as yet, been brought forward, which would justify *even the supposition of a special localization of these*. There is nothing more known with any degree of positiveness, than that they are associated with affections of the grey cortical substance of the cerebrum. Lesions of certain circumscribed districts of the grey cortex either do not give rise to any noticeable symptoms, or they produce, like the diffuse affections of the brain and its meninges, disturbances more or less marked in the *whole intellectual sphere*. These statements are, of course, not surprising to those who have made a special study of mental diseases and its pathology; yet, the fact is worth mentioning, in view of the vague position taken by some writers on this subject, in this country.

In the second part of the work, "Review of the Focus Symptoms," Dr. Nothnagel arranges into groups, in a demonstrative manner, the signification which the individual phenomena have for a local diagnosis. In the introduction, he directs attention to the great influence upon the diagnosis of cerebral diseases, which was brought about by Griesinger's division of the lesions into local and diffuse affections.

The local lesions or foci produce phenomena in a three-fold way—

1. In consequence of the destruction of a circumscribed part of the brain, there will be a complete arrest of the functions of this part; or, in the words of Goltz: foci of defect create symptoms of defect. Since the signification of many districts in the brain is not known, it is clear that the symptoms of defect of a great number of foci are not recognizable. They remain latent,

as is the technical term. However, where there are distinct phenomena of defect, they of course form the most important and reliable element in the local diagnosis. It is evident that these, physiologically, must present themselves as paralyses of the different functions.

2. Yet, not every paralysis is dependent, directly, upon the destruction of a distinct district. If there is, for instance, a recent hæmorrhagic focus, the blood-coagula may, possibly, act upon neighboring districts by pressure, by an impairment of the circulation or, in another unknown manner, arrest the function and thus give rise to symptoms similar to those of defect, of larger extension, which can be designated as phenomena of inhibition. If the patients keep alive long enough, the symptoms will gradually disappear in proportion to the absorption of the exudation, and finally, only those remain which directly depend upon the defect in the substance of the brain.

3. A local focus may, under certain circumstances, produce a local irritation and thus raise symptoms which, in a physiological sense, must be designated as phenomena of irritation. The diagnostic value of these also, as it will be admitted, is rather doubtful, since we have no means to determine the extension of the irritating effect.

Now, from these three points of view, the author discusses disturbances in the motory and in the sensory sphere; disturbances of vision, of hearing, of smell, of taste; disturbances of the muscular sense and of the reflex actions; changes in the electric excitability; vaso-motor and trophic disorders; disturbances of speech; disorders in the digestive apparatus and in the urinary system; headache and vertigo; disturbances of the sensorium.

From this part of the work, there can also no abstract of any value be given, and we refer, for all particulars, to the study of the original, which should have a place in every medical library. Appended to the text, the reader will find valuable information as to the literature of the subject, comprising references to five hundred and sixty books, pamphlets and articles.

Handbuch der Geisteskrankheiten.—(*Handbook of Mental Diseases.*) By Dr. HEINR. SCHUELE. Leipzig: 1881. F. C. W. Vogel.

Scarcely two years have gone by since the publication of the sixteenth volume of the German edition of Ziemssen's Cyclopædia of Medicine, containing Schüle's Manual of Mental Diseases, and, some months ago, we had the pleasure of receiving, from the author personally, a copy of the second edition of his elaborate work. It is not merely a reprint of the former, but in many important particulars a *revised* edition. The high value of the book, as we have announced already in a former review, is to be sought for not only in the completeness of the material worked up and in the true scientific spirit with which the material is arranged, but in the originality of the work as the result of the author's personal studies and his own experience in his capacity as one of the chief physicians to a prominent and admirably conducted institution for the care of the insane. The changes made in the present edition are characteristic of the same thoughtfulness of the distinguished author, which prevails throughout the book, and of his earnest efforts to clear the way for the solution of difficult problems as well as for the better understanding of conditions obscure and not easily accessible in their nature. We find examples of this in the revised chapter on catalepsy; in the chapter on hallucinations and their theory; in the chapter on insanity from affec-

tions of the sexual organs and from excesses in venery; in the chapter on the different forms of chronic mania, of mania furiosa and others. Aside from this the author has kept up with the times and supplemented what he found worthy to be noticed.

We again recommend the book as the best standard work published in the German language since the death of Griesinger.

Compendium der Psychiatrie für Praktische Aerzte und Studierende.—(*Compendium of Psychiatry for Practical Physicians and Students.*) By Dr. J. WEISS. Vienna: 1881. Bermann & Altmann.

The German psychiatric literature, after a period of confining itself to communications of the results of close special studies, still under the guidance of Griesinger's leading handbook, attracts attention by the recent publication of a number of most valuable and elaborate works. We had the pleasure not long ago of announcing Schüle's Manual of Mental Diseases, of which, after the lapse of not quite two years, to-day a second revised edition lies before us. There is also, Kraft-Ebing's text-book of psychiatry, on a clinical basis, the result of prominently original observations and, like Schüle's of a wide experience in asylum practice. Further, Leidesdorff's textbook of mental diseases; Emminghaus' Psycho-Pathology; etc. The little compendium of psychiatry before us, is an eminently practical book; it is astonishing how much material of real value, worked out in an admirable manner, the two hundred and seventy-three pages of the book contain. The author in the introduction explains the reasons why, with our present defective knowledge of the physiology, anatomy and pathology of the organ of mind, any account of mental disturbances has to confine itself merely to a description and an exposition of the ob-

served clinical facts. Thus the whole material divides itself naturally into a general part, comprising the symptomatology of insanity, and in a special part, containing the symptoms arranged in groups on an empirical basis. In the first part, therefore, the composing elements of the phenomena of insanity are discussed, in the second the different forms characterized under which insanity presents itself.

The author then proceeds at once in the first chapter to the description of the most conspicuous and imposing phenomena of psychical derangement, the delusions and hallucinations, and draws a clear picture of the different features of both, and of their relations to each other.

The second chapter treats of the interesting theme of psychical debility. The author is well aware of the breadth of this symptom and the difficulty of applying to it the proper measure. He characterizes its difference from lack of education and experience, from stupidity, and from the lighter degrees of dementia, and considers the symptom in its two aspects, as one, brought into existence, secondarily, in the terminal stages of protracted psychical affections, and as one of primary nature forming the soil upon which psychical disturbances develop.

Chapter III, morbid sentiments, their character, origin and relation especially to delusions and hallucinations. Chapter IV, anxiety, considered more as a state of psychical disorder than as a single symptom. Chapter V, stupor, in the author's opinion, not to be taken as an advanced stage of any other symptom, but as one of a independent significance; it is the complete psychical and motory arrest, the typical picture of cerebral debility, the minimum functionality of the brain. It may, however, be associated also with the most various psychical disturbances. Chapter VI, abstinence, based mainly upon suicidal thoughts; delusions of narrowness; re-

ligious delusions and hallucinations. Chapter VII, incoherence. The author distinguishes between a primary transitory and secondary chronic incoherence and explains their nature, and relation to other phenomena, as aphasia, etc. Chapter VIII, disturbances of sensibility and motility. They are described as the most perilous symptoms of psychical alienation in so far as their appearance is indicative of a direct danger to the life of the patient. They are evidences, in the author's opinion, of an organic change, from an anatomical point of view of structural disease of the brain; while the other affections do not pass beyond the line of mere functional alterations. With this latter view of the author we certainly do not agree, yet do not consider it the place to enter into any controversy here, since from the standpoint which predominates in the book, the question is of subordinate importance; it does not in the least affect the high value of the work.

In the second, the special part, Dr. Weiss treats of the different symptomatical groups of insanity. Since we have given in the foregoing at least, some idea of the richness of the book and the admirable arrangement of the material, we do not consider it necessary or even practical to make abstracts from the following chapters. The pictures of the different forms of the disease are delineated in the same concise and pregnant language, which characterizes the whole work and the author's communications in general, and they are full of evidences of close personal observations and asylum experience. The groups are arranged as follows: Chapter I, Paralytic Insanity; the only form in which the author makes reference to the pathological anatomy of the disease. Chapter II, Epilepsy. Chapter III, Alcoholism, in which the author puts the bad consequences of an abuse of alcoholic liquids not as much on account of the alcohol itself as

upon admixed substances and adulterations. Chapter IV, Chronic Mania. Chapter V, Dementia. Chapter VI, Melancholia. Chapter VII, Mania. Chapter VIII, Circular Insanity.

The author has met in his compendium a real want in psychiatric literature, and we recommend the book heartily to medical practitioners and all students of medicine.

Diseases of the Pharynx, Larynx and Trachea. By MORELL MACKENZIE, M. D., Lond., etc. New York: Wm. Wood & Co., 1880.

A Treatise on Diphtheria. By A. JACOBI, M. D., etc. New York: Wm. Wood & Co., 1880.

A Practical Treatise on Nasal Catarrh. By BEVERLEY ROBINSON, A. M., M. D. New York: Wm. Wood & Co., 1880.

Hygienic and Sanative Measures for Chronic Catarrh and Inflammation of the Nose, Throat and Ears. Part I. By THOS. F. RUMBOLD, M. D. St. Louis: Geo. O. Rumbold & Co., 1880.

Dr. Mackenzie's work is but the first volume of a "Manual of Diseases of the Throat and Nose, including the Pharynx, Larynx and Trachea, Œsophagus, Nasal Cavities and Neck." The volume under consideration forms one of Wood's Library of Standard Medical Authors. In this instance the publishers are to be congratulated upon their selection, for though the present seems somewhat fruitful in works upon these and kindred topics, we know of no author more able to instruct the profession than Dr. Mackenzie.

The author has not only availed himself of the fruits of his own rich experience, but has freely gleaned in other fields, English, Continental and American.

Each section of the work is opened with a sufficiently detailed account of the anatomy of the part treated,

both descriptive and surgical. The nomenclature used is, in the main, that of the Royal College of Physicians, and the Latin, French, German and Italian equivalents are given in each instance.

Simple chronic pharyngitis the author regards as almost always amenable to treatment, and in the majority of instances a cure may be expected. In regard to granular pharyngitis, his prognosis is not so favorable, but improvement may be expected. Complete restoration of the vocal powers is seldom to be expected, especially if the patient expects to use his vocal organs as a speaker or singer. Careful directions are given as to treatment, both medicinal and hygienic. The enlarged follicles in granular tonsillitis the author destroys with London paste, touching one follicle at a time with the caustic. Dr. Mackenzie evidently does not regard the extirpation of the larynx as a procedure to be entered upon without due and careful consideration, and only to be undertaken at the explicit request of the patient, to whom it has been fully explained. His views upon diphtheria are of interest as compared with the next work on our list, Dr. Jacobi's. Like Dr. Jacobi, Dr. Mackenzie does not give assent to the doctrine of Oertel, Hueter and others, regarding the active agency of bacteria in this disease. He regards it as not a modern disease, and gives a brief but interesting and concise history of the subject, its literature, etc. In the treatment of diphtheria he divides his agents into four classes, recuperative, alleged specifics, antiseptics and expectorants. Of the first of these he regards iron and quinine the most valuable. Thirty minims of the Tinct. Ferri Perchloridi are to be given to adults every two or three hours. After enumerating the various so-called specifics, Dr. Mackenzie dismisses them by saying: "None of the various drugs just enumerated, how-

ever, can legitimately lay claim to anything like a certain and specific action." Of the general antiseptics, iron, chloral of potash, carbolic and salicylic acid are named. Of chlorate of potash, he says: "the general weight of evidence is very much in its favor. Ten to twenty grains may be given every two or three hours."

Of local treatment Dr. Mackenzie places most dependence upon lactic acid as a solvent. Various agents are also mentioned as local antiseptics. The value of ice and of hot fermentations, by steam, or otherwise, are not overlooked. The entire volume is well written, and will amply repay perusal and study.

Dr. Jacobi has long been known as a contributor to the literature of diphtheria. The present monograph is divided into nine chapters, as follows: History, Etiology, Manner of Infection, Contagion and Incubation, Symptoms, Anatomical Appearances, Diagnosis, Prognosis and Treatment.

Dr. Jacobi defines diphtheria as "a specific, infectious, and contagious disease, characterized principally by epithelial changes in, and exudations of fibrine on and into mucous membranes, the surfaces of wounds, and the rete malpighii, thereby constituting the so-called pseudo-membrane," and considers it as a disease known and recognized by the ancients.

Concerning the etiology of diphtheria Dr. Jacobi summarizes his views as follows:

"Diphtheria is pre-eminently a disease of childhood. It is not frequent amongst adults, very rare in old age. * * * Exposure and 'colds' may act but as proximate causes only. Most cases take place in the winter months in our climate, but there is no 'invariable season law.' 'Filth' contributes to the generation of diphtheria, as it does to dysentery and typhoid fever. * * * The presence of bacteria in the diphtheritic blood has not been proven. There is no theoretical ground for assuming that pre-

venting the bacteria of a diphtheritic patch from making their way through the underlying mucous membrane will, *per se*, prevent general diphtheritic infection of the system."

Our space will not allow us to follow Dr. Jacobi in his admirable summary of the pathology and symptomatology of this disease. We can only, in conclusion, refer to his remarks upon treatment, which are quite extended, and well considered.

The following paragraph, taken from the resumé of treatment advocated by other authorities might be considered somewhat satirical, and is perhaps so intended: "A. Erichsen, (Petersb. Woch. 1877, No. 4,) hydrogrocyan. 0.0006, (gr. $\frac{1}{100}$), to children under three years 0.0012, (gr. $\frac{1}{80}$), over three years, every hour; every two hours during the night. *He did not succeed in losing more than three children out of twenty-five.*"—(Italics are ours.—Eds.)

Dr. Jacobi advocates active and immediate treatment, and pertinently remarks, "waiting long means often waiting too long." He is a stronger advocate of the use of alcohol than Dr. Mackenzie, and relies more upon its use from the commencement than does the former. The chlorate of potash, he points out, as is too frequently forgotten, is an irritant poison, in large doses, and Dr. Jacobi thinks in some cases, a fatal result has been produced by its indiscriminate use. He advises its use (pg. 161) in small but frequently repeated doses, to produce its local effect; the idea being to keep it constantly in contact with the diseased surfaces. The chloride of iron, mixed with glycerine and water, is to be given in frequent doses, a child a year old taking a drachm every twenty-four hours, and for adults a larger amount, this is to be administered in divided doses, as often as once an hour, half hour, or every ten minutes. Care is directed against any procedure cal-

culated to wound inflamed surfaces, and the local applications advised are mostly of a mild nature.

Dr. Jacobi is very stringent in his directions regarding prophylaxis. The work is concise and forcible in style as by one who speaks *ex cathedra*, and the author may congratulate himself upon the favorable reception which it is sure to meet.

Dr. Robinson's work is a careful and apparently conscientious record of personal experience and information in the treatment of those troublesome and often intractable ailments coming under the common head of catarrh. Opening with a sufficiently extended account of the anatomy, physiology and pathology of the parts involved, Dr. Robinson describes the instruments for, and the methods of observation and diagnosis. The methods of treatment are well described, and the formulæ given are those which extended experience have proven to be the best. Dr. Robinson, except in removing hardened secretion, does not make frequent use of liquid applications, preferring instead, vapors and powders. The concluding chapters are upon the surgical treatment of hypertrophied turbinated bones, and upon post-nasal catarrh. The author does not depend upon local treatment alone, and his remarks upon internal medication are well considered.

The work is one of much value, and will be found of practical assistance in the treatment of catarrhal troubles.

Dr. Rumbold's book is but one part of a contemplated work on the hygiene and treatment of catarrh, and is written as much with a view to popular as to professional reading. His directions and rules are not such, we imagine, as will find ready adoption as a prevent-

ive of catarrh, as the majority of mankind will prefer to run some risk rather than wearing three or four thicknesses of under-clothing, giving up tobacco, bathing infrequently, and changing the under-clothing but once in two or three weeks. Concerning treatment, nothing new is presented.

On the Construction, Organization and General Arrangements of Hospitals for the Insane, with some Remarks on Insanity and its Treatment. By THOMAS S. KIRKBRIDE, M. D., LL. D., etc. Second Edition. Philadelphia: J. B. Lippincott & Co., 1880.

The first edition of this work appeared in 1854, and has since been a standard of information to all seeking knowledge on the various topics of which it treats. Twenty-six years additional study and experience, have confirmed some of the views expressed in the first edition, and broadened others, so that we have now a volume of over three hundred pages, as the successor of the first edition which contained but eighty pages.

Dr. Kirkbride's views are already so well known, that we shall content ourselves with simply enumerating the sub-divisions of the work, and not attempt to make any summary of his statements on construction and organization. The opening chapters treat of insanity, its frequency, curability, and the economy and methods of caring for the insane. Dr. Kirkbride does not believe that the home treatment of the insane, compares in efficiency with that of well organized hospitals. And in this his views are confirmed by the statement of Dr. Browne, quoted in Sir James Coxe's testimony before the Select Parliamentary Committee, that "the worst case in an asylum was better than the best out of an asylum." In this connection we may say that he would discard altogether, if possible, the word "asylum," substituting for it the term, "hospital for the insane."

The chapters following are upon the steps toward organizing a hospital, selection of a site, amount of land, supply of water, architectural arrangements, size of buildings, number of patients, and more or less minute directions concerning construction, material, etc. These chapters, seventy-one in number, comprise the first part of the work, and are wholly devoted to construction. They are amply illustrated by plans and drawings, and will be a valuable guide to managers and commissioners having charge of the construction of hospitals for the insane. Part two is upon the organization and arrangement of hospitals for the insane, and deals with the general matters of internal administration. The number, character and general duties of the various officers and employés are specified quite fully. Dr. Kirkbride does not think a board of consulting physicians desirable, preferring the plan adopted in the majority of our institutions, of calling in consultation, when necessary, some outside physician. On this point, Dr. Frederick Norton Manning, in his Report to the Government on Lunatic Asylums, says:*

"In Ireland, one or more consulting physicians, receiving, generally, an annual payment of from £100 to £150 a year, are attached to every asylum, and are charged with the duties of occasional visitation, and the treatment, in consultation with the medical superintendent, of all cases in which their opinion and advice may be deemed necessary. The same system exists in a few Scotch asylums—Aberdeen, Dumfries, Dundee and Glasgow. To many of the French asylums, there is attached a consulting surgeon, who receives about £50 a year; his duties being to visit the asylum weekly, and give his advice concerning the treatment of all surgical cases upon which the medical superintendent may think it desirable to consult him. But such consulting medical officers are not attached to any of the English or American institutions,

*Report to the Colonial Secretary after visiting by order "the Chief Asylums in the United Kingdom, on the Continent, and in the United States."

and their appointment is generally regarded as not only unnecessary, but objectionable."

Dr. Kirkbride advocates increased didactic and clinical instruction upon the subject of insanity, and regrets the prevailing ignorance both in the public and profession upon the subject.

From his concluding remarks we quote the following as very pertinent to the present era:

"Although error now as always, maintains its character of spreading more rapidly than truth, and what are called new views, which are often only the old practices of a period long past, are every now and then pressed upon the attention of communities, still it will be conceded, that these errors do not come from those who have been devoted to the care of the insane, and who are practically familiar with their treatment, for they have always formed the bulwark that has steadily resisted all retrograde movement, even if dignified by a claim to advance. It will indeed be against all reason and common sense, when those whose novel views are the offspring of theories engendered in the retirement of their closets, and who are without even the slightest practical knowledge of the subject, shall be selected as the guides to enlighten those whose lives have been spent in an active intercourse with the insane, and a special devotion to everything connected with insanity and its treatment.

One of the remarkable tendencies observed of late, is a disposition in certain quarters to go back to what was not uncommon half a century ago, and under the captivating titles of progress and reform, to ask for a new trial of what has been thoroughly tested, found full of defects, and abandoned. All this only shows, how difficult it is with many to learn from the practical experience and investigations of others, and how much like fashion in other things, are the views in regard to philanthropic subjects, revolving as it were in a circle." * * * *

"These institutions can never be dispensed with—no matter how persistently ignorance, prejudice, or sophistry may declare to the contrary—without retrograding to a greater or less extent to the conditions of a past period, with all the inhumanity and barbarity connected with it. To understand what would be the situation of a people without hospitals for their insane, it is only necessary to learn what their condition was when there were none."

We congratulate the profession upon the publication of a work which is calculated to do so much toward a better understanding of the principles of hospital construction and management, and which must, we are sure, be received with general commendation, coming from an author so competent by practical experience for the task.

The Practitioner's Reference Book. By RICHARD J. DUNGLISON, A. M., M. D. Second, Revised and Enlarged Edition. Philadelphia: Lindsay & Blakiston, 1880.

Dr. Dunglison's work met with such a ready reception at the hands of the profession, that a second edition was soon called for, and the author, in issuing it, has thought best to enhance its usefulness by adding a large amount of new material, making the present edition about one-fourth larger than its predecessor.

The new material embraces directions upon the writing of metric prescriptions, the use of the hypodermic syringe, the galvanic battery and the clinical thermometer. Diagnostic tables of various diseases are also introduced, and a list of celebrated prescriptions.

For a mere work of reference upon many of these various points, the volume will be found of value, but the terseness of some of its statements will, unless care is exercised, tend to mislead some who consult it hastily, and even do serious harm. For instance, we read on page 329, without further comment or suggestion, that "morphia, subcutaneously, with inhalations of five drops of nitrite of amyl immediately following, have proved successful," in infantile convulsions. On the same page we read that equal parts of water and solution ferri per chlor. (the amount not stated) injected into the trachea, just below the thyroid cartilage, dissolve the membrane in croup, and assists in its expectoration. As a rule,

we doubt the wisdom of the entire class of works of ready reference, to which this belongs; but, if such works must be published and sold, we know of none more calculated to fill its place than Dr. Dunglison's.

SUMMARY.

—The following notice of the election of Dr. John P. Gray as a member of the Société Médico-Psychologique, Paris, has been received :

MEDICO-PSYCHOLOGICAL SOCIETY OF PARIS, }
 PARIS, November 30, 1880,
 Office of the Secretary General. }

Sir and Very Honored Confrère—I have the honor to inform you that the Medico-Psychological Society of Paris, having unanimously adopted the conclusions of the Committee appointed to present your candidature, elected you an associate member at their meeting on the 29th of November.

I congratulate myself on making this decision known to you; it adds to our society a savant whose labors are known to us all, and from whose experience and researches we shall doubtless derive profit.

Accept, sir and dear colleague, the sincere expression of our lively sympathies, and the assurance of my most distinguished consideration.

The Secretary General,

Dr. GRAY.

A. MOTET.

EDITORS OF THE JOURNAL OF MENTAL SCIENCE ON THE ADMINISTRATIVE DUTIES OF MEDICAL SUPERINTENDENTS.—In view of utterances claiming the entire separation abroad of the medical and administrative management of asylums, the following remarks by Drs. Savage and Tuke, editors of the *Journal of Mental Science*, at the last annual meeting of the British Medico-Psychological Association, are *à propos* :

"Dr. Savage hoped that the Members would more readily come forward and would not require so much whipping up. The enormous number of interesting facts which came before them and were wasted for want of communication distressed the Editors, who wished to collect all they could. There was another suggestion which he hoped would be acted upon—that there should be, occasionally at all events, an addition to the *Journal* in the form of practical details—for instance, that one Member should take up the question of washing; other Members the best means of arranging kitchens, making ward decorations, &c. They were questions of immense importance. It was all very well for extremely scientific Members to say, "Oh! let some one else do that," but in his opinion all these things came within the scope of a good physician, and if the administration of kitchens and other arrangements could be bettered, surely it ought to be done. He could say for himself, and also for the other Editors, with whom he had discussed the matter, that they would be only too glad if any Members (without requiring whipping up) would contribute such details, and it was to be hoped that next year this suggestion would be found to have borne some fruit.

Dr. Hack Tuke said that he was glad these suggestions had been made. Members would, perhaps, bear in mind his own remarks on a previous occasion when he proposed the setting apart of a corner of the *Journal* to be designated "Our Confessional," as more was often to be learnt from failure than success."

The senior editor of the *Journal*, Dr. Clouston, as is well known, has personally supervised the extensive improvements at Morningside, where he has ably filled the position of Medical Superintendent, and his recently published plans and specifications for an asylum are well known in this country.

—In our July number we noticed the appointment of Dr. J. B. Andrews as Superintendent of the new State Asylum for the Insane, at Buffalo.

Dr. Andrews did not assume charge of the Asylum at Buffalo until the opening of the fiscal year commencing with October 1st. We can not let this opportunity pass without placing on record our appreciation of his

long and faithful service as an Assistant Physician in this institution. Commencing in 1867, as Third Assistant Physician, he occupied since 1871 the responsible position of First or Senior Assistant, and fulfilled his duties with a commendable zeal and fidelity. To the readers of this JOURNAL he is well known through its pages as one of its editors, and it is hoped that his experience in his new field of labor will find expression through the same medium. It is a matter of gratification while severing his relations with this asylum, that the scope of his labors has only been enlarged, and that his services in the field of Psychological Medicine will be given to an institution in this State. The asylum at Buffalo was opened for patients on the eighteenth of November.

Dr. Andrews has been appointed lecturer on insanity in the Medical Department of the University of Buffalo.

INTERNATIONAL MEDICAL CONGRESS OF 1881.—We have received, from the Secretaries of the Section on Mental Diseases, an announcement of the arrangements thus far made for that section. The officers of the section are as follows:

Dr. Lockhart Robertson, President.

Dr. Crichton Browne, LL. D., F. R. S. E., and Dr. Maudsley, Vice Presidents.

Dr. Gasquet, and Dr. Savage, Secretaries.

The subjects proposed for discussion, are:

Anatomy—1. Modes of Preparation of Nervous Tissue; 2. Morbid Appearances, due to Modes of Preparation; 3. Minute Structure of Special Parts of Brain. Physiology—1. Relation of Cerebral Localization to Mental Symptoms, as Hallucinations; 2. Hypnotism. Pathology—1. Of Idiocy, Morphological and Histological Changes; 2. Relations of Insanity to Gout, Renal Disease, Exophthalmic Goitre, and to Coarse Brain Disease. Clinical—1. "Folie à double Forme;" 2. Influence of Intercurrent Diseases on Insanity; 3. Insanity due to Toxic Agents. Therapeutical—

1. Use of Baths, of Narcotics, of Chloral Hydrate, of Opium, and of Alcohol; 2. New and Unusual Remedies. Asylum Administration—1. Cottage and Village Treatment; 2. New Legal Codes, Austrian, Italian and English Projects. Civil Relations of the Insane—1. Marriage, Wills; 2. Insanity and Aphasia. Criminal Relations of the Insane—Special Asylums for Insane Criminals.

The President and Secretaries will feel obliged by your sending a reply, stating if it is your intention to be present at the Congress, and if you have any suggestion as to subjects for discussion.

All communications regarding this section should be addressed to

DR. GASQUET,

DR. G. H. SAVAGE.

Bethlem Hospital, St. George's Road, London, S. E.

THE TRAINING NECESSARY FOR A REAL KNOWLEDGE OF INSANITY AND ITS TREATMENT.—We copy the following editorial from the *Boston Medical and Surgical Journal*, which we commend to the notice of all our readers. Our mail daily brings us pamphlets and addresses which would have never been printed had their authors been guided by the principles here so well enunciated.

"In an editorial article published in the *Journal*, May 20th last, volume cii. page 497, expression was given to a feeling of dissatisfaction with the composition of the then existing lunacy department of the Massachusetts Board of Health, Lunacy and Charity, on the ground that, whatever their other qualifications might be, no one of that department possessed a real knowledge of insanity and its treatment.

This criticism passed unchallenged for more than six months, when exception was suddenly taken to it. We therefore feel it proper, though at this late day, to define somewhat precisely our idea of the requisite training for the obtaining of a real knowledge of insanity and its treatment, as this will, perhaps, best define in what that knowledge consists.

A thorough general medical education is an indispensable preliminary to such training; these studies should be followed by some years of experience in general private or hospital practice, and the final pursuit of the special branch of insanity must be

founded upon and accompanied by personal observation and treatment of the disease as a medical officer in the wards of an asylum.

Doubtless it is possible for a stupid or a lazy person to have had access to all these desiderata, and yet escape the possession of a real knowledge of insanity and its treatment, but without this training we hold that such knowledge is not to be found. A person may know something about insanity and the insane, have a great, and in some ways valuable acquaintance with the statistics of the disease, and the sociology of the afflicted, and yet not possess a real knowledge of insanity and its treatment. We hold it to be of the first importance that such a real knowledge should be not only represented, but strongly represented in any department of lunacy, or on any lunacy commission, as is the case in the Scotch and English commissions. There would still be plenty of room left for executive or administrative capacities. Just as we are opposed to the superintendent of an asylum being made a mere administrative factotum, so we are opposed to a department in lunacy being made a mere machine.

MODEL FOR ILLUSTRATING THE RELATION OF NERVE FIBRES OF THE MEDULLA AND SPINAL CORD.—We have received from Dr. Albert Seessel of New York, by whom it was designed, a model for illustrating this most difficult and important portion of human anatomy. It is constructed of two wood plates, separated some distance and held together by six small wood slats. One plate represents a section of the medulla giving its exact contour about the height of the hypoglossi nuclei; the other plate a section of the median cervical portion of the cord. Both plates are colored to give the various histological details of the cord and medulla. Between the two plates is a series of wires, differing in size and color, to illustrate the different columns of new fibres; anterior, posterior, lateral, &c., their course and decussation. The whole model represents a section of the upper portion of the cord with a correct outline of the same, special attention being given to portray correctly the relation and course of the columns as

well as their relative size. In the anterior column there are two divisions, one inner, represented by green balls and wires, forming the anterior pyramidal column; the other the outer, represented by black balls and wire forming the main bundle of the anterior column. The lateral columns are divided into three parts; the central or latero-pyramidal represented by red balls and wires; the lower and outer cerebello-lateral by brown, and the upper and inner, being the remainder of the lateral columns, by drab balls and wires. The posterior columns are divided into two parts; the inner (Goll's column) represented by yellow balls and wires, and the outer (Burdach's) by blue balls and wires. The center of the wood plate reproduces in general the outlines of the grey matter of the cord.

In the section of the medulla, the pyramids are divided into two parts, the internal, latero-pyramidal, represented by red, and the external, the antero-pyramidal column, by green balls and wires. Above these and between the nuclei of the hypoglossi are black balls representing the remainder or main bundles of the anterior columns. Between these latter and the pyramids are the remainder of the lateral columns covering a large portion of the substantia reticulata and given by drab balls and wires. On the external lateral side of the corpora restiforma are brown balls, (cerebello-lateral columns). Interior to these are blue balls designating Burdach's columns, and above these are Goll's columns marked by yellow balls and wires.

The various colored wires spoken of as representing the columns or parts of columns, traverse the space between the sections of the medulla and cord to represent the actual relation of the fibres, their decussation, &c.

The green wires representing the antero-pyramidal columns pass from the section of the cord to that of the medulla without decussating, whereas the red, marking the lateral pyramidal columns, decussate, forming possibly what is known as the *decussatio pyramidum*. The brown wires (cerebello-lateral columns) run from cord to medulla without decussating, as do the drab wires, the remainder of the lateral columns and the black wires, the main bundle of the anterior columns. The yellow wires, representing the columns of Goll, and the blue those of Burdach, decussate.

This model in the main is in accordance with the views of Flechsich, Ludwig, Pierret, and Charcot, which Dr. Seessel has partially verified by his own investigations and preparations and partly by the examination of the preparations of Professor Flechsich and others. They are also in a measure confirmed by pathological investigations and by the conditions found in embryonic and foetal preparations.

We consider this model a most admirable method of illustrating the anatomy of the nervous system, and are glad to learn that Dr. Seessel has others in preparation.

OBITUARY.

WILLIAM LAUDER LINDSAY, M. D., F. R. S. E., F. L. S.
—It is our painful duty to record the death of Dr. Lauder Lindsay, an event whereby medical science has lost a sincere disciple and our special department one of its best men. Little over a year has elapsed since this distinguished alienist resigned his position as Medical Superintendent of the Royal Murray Asylum, at Perth, in the hope of being able to recruit by rest

a constitution which had been sorely shattered by long suffering and overwork. But he was destined never to enjoy that well-earned ease of retirement which he had so ably advocated for men of his class, in his pamphlet on *The Superannuation of Officers in British Hospitals for the Insane*. He died on November 24th, 1880, at the age of fifty.

Dr. Lauder Lindsay was, in many respects, a remarkable man. As a student at the High School, and subsequently as an undergraduate in medicine at the University of Edinburgh, he carried everything before him. On the completion of his medical curriculum in 1852, he took charge of the Edinburgh Cholera Hospital, and there made some valuable investigations with reference to the communicability of cholera to the lower animals. Appointed Assistant Physician to the Crichton Asylum, at Dumfries, in 1853, he was elected, a year later, when but twenty-four years of age, to the responsible position of Medical Superintendent of the Royal Murray Asylum, an appointment which he held for a quarter of a century.

Our late *confrère* was well known as a botanist, and making lichens a special study, he wrote, and gave to the world in 1856, a *History of British Lichens*. As a geologist he enjoyed no mean reputation, and there is scarcely a subject having a direct or indirect bearing on medical science, on which his prolific intellect and pen have not been engaged. His best production is *Mind in the Lower Animals*, a work which reflects the author's keen perceptive faculties as well as his humane spirit. To Americans, and especially to the readers of this JOURNAL, he is probably best known for his crusade against Conollyism. Enthusiasm, when carried too far, becomes fanaticism, and finishes by defeating the good ends which it would serve. When, therefore,

Lauder Lindsay found so many of his fellow alienists in Great Britain so lustily shouting this shibboleth, he was not slow, in the exercise of that fearless, independent spirit which was so striking a trait in his character, to expose the weakness of a dogma which seemed to him to be fraught with so much mischief to a great system. His views and experience are embodied in his contributions to these pages as well as in his articles in the *Edinburgh Medical Journal*. Perhaps the value of his opinions on Conollyism or non-restraint, is best shown in the present practice in British asylums as appears in the Report of the Commissioners of Lunacy.

Cultor veritatis fraudis inimicus, he possessed to an extreme degree the courage of his opinions, and never hesitated, even at the risk of giving mortal offense, to speak the naked truth. In private life he was retiring, not to say seclusive, and, except to travel, seldom left his fireside. He came to this country in 1870, and visited some of our large asylums. Few men have labored so unceasingly for their profession as Lauder Lindsay, and although he has passed away at an age when the majority of men are in their prime, we have the satisfaction of knowing that he still lives among us in his manifold writings, and in the progress which he has helped to achieve for practical psychiatry during the twenty-five years of his asylum activity at Perth.

AMERICAN JOURNAL OF INSANITY, FOR APRIL, 1881.

THE CONDITION OF THE BRAIN IN INSANITY.

BY THEODORE DEECKE.

The pathology of brain diseases of which "insanity" is considered an evidence, is still one of the problems of medical science. The pathology of an organ as a doctrine, presupposes the most complete knowledge of its physiology; in fact, it is but the physiology of the organ, under the influence of abnormal conditions and processes. Now, as to the physiology of the brain as the organ of mind *par excellence*, little is known, and we have neither an apprehension nor any idea of the mode of operation of the nervous organism which is supposed to be concerned in the act of perception, in thinking, reasoning and acting with freedom. Since, therefore, insanity in its very nature moves entirely within the sphere of these phenomena, it is evident that of the pathology of the organism supposed to be involved in its manifestations, nothing can be positively affirmed. We therefore prefer to the term "Pathology of Insanity," commonly in use, the more general term, placed at the head of this article "Condition of the Brain in Insanity." We have, indeed, to confine ourselves to the description of the anatomical changes in the structural elements of the brain, observed in connection with the different forms in which insanity presents itself, and to

the determination of their nature, of their seat in the organ and their probable origin. It will not be disputed that, from a practical point of view, a thorough knowledge of these conditions is not only most desirable, but imperatively necessary, forming as it should, the basis of all successful medical treatment and management of the disease. This holds good even in spite of the fact that the general principles of the latter have been anticipated from conclusions drawn from skillful clinical observations and every one will acknowledge the modifying and correcting influence of a closer insight into the pathological changes to which the elements of the affected organ are subject.

All progress in this direction is derived from researches in the line of Virchow's cellular pathology and its results. The grand and pregnant idea of this doctrine is, that the *cell* itself, as the last structural element of all organs of the body, is not only the bearer of life, but also of disease. With the establishment of this doctrine, the principle of the localization of disease was practically introduced into medicine, and became the foundation of pathology, as well as the leading idea of all rational therapeutics. It is also well known how greatly this principle, brought face to face with clinical facts, has advanced our knowledge of the organs and their constituent parts, and the nature and localizations of their functions. Especially in the case of the brain, almost all that is known of the psycho-physiology of the organ, has been derived from this source, and from it alone can further information be expected.

Thus it has been established, beyond dispute, that the psycho-physical apparatus, which is concerned in pure mental activity, has its seat in the grey cortical substance of the convolutions of the brain, viz.: that

perception, the formation and the association of ideas; mémoire, reason, attention, the emotions and volition, are dependent upon the operations of a nervous apparatus situated in the cortex cerebri of the hemispheres. Without this apparatus there is no manifestation of mind, no thought; its defect involves a defect of mind, its impairment, an impairment of mind. Aside from this, however, nothing is positively known of the special physiological functions of this apparatus and its constituent parts. Yet we seem compelled to assume the existence of the most universal relations of all its elements with each other, which may, however, physiologically and anatomically, be subject to variations in each case according to individual organization. A further localization of function, however, as regards the manner in which different faculties of the mind might be attributed to different regions of the grey cortex, to single or different groups of the convolutions, has not yet been proved by facts. The recent division of the brain into areas of different order and significance, as the result of conclusions arrived at from pathological observations and from physiological experiments, has nothing to do with the question here considered. All phenomena connected with those experimental observations relate solely to localizations in the white fibrous tracts of the brain, and in the sub-ganglia of grey matter at the base of the organ, in the pons, the medulla oblongata and the spinal cord. The extension of these facts of localization over the organisms of the grey cortical ganglia, is an outgrowth of the supposition that direct anatomical connections exist between the white fibres and the ganglionic cells, at the points where the former terminate in the cortical grey matter. This relationship of the two elements to each other, however, has not yet been substantiated. Con-

cerning the highest developed ganglionic organisms in the peripheral grey cortex of the hemispheres, the idea of their anatomical and physiological unity, and the possibility of substitution, and of re-establishment of function must not be lost sight of. Localized lesions or foci in the grey substance, as is known from pathological as well as physiological observations, either do not give rise to any noticeable disturbances or to disturbances in the whole intellectual sphere; whilst all diffused affections, without any exception, present the latter association.

The general feature of the brain of persons who die insane is that of atrophy of the organ in the widest sense of the word, arising from disorders in its proper nutrition. This points, first of all, towards one common source, viz.: affections of parts of the sympathetic system in their function as regulators, not directly as regards the nutrition of the elementary constituents of the organ, but rather the active part which the circulatory apparatus plays in the processes of nutrition. The first anatomical changes observed, therefore, are palpable lesions in the vascular system of the organ. It must be borne in mind that the vascular ducts, and especially their nutrient part, are not simply a system of passive tubes in which the blood circulates, leaving the office of the exchange of oxygen and carbonic acid, and of the other nutritive materials solely to the active powers of the tissues with which they communicate. The degree and the character of this exchange, in each case, is also dependent upon the peculiar functional nature of the endothelial lining of the vessels and of their special condition. It is well known to what great alterations the latter may become subject, by changes in the composition of the blood, by the presence or absence of certain chemical compounds in the same,

by changes in the velocity of the blood current, and also in the pressure of the blood in the vascular ducts. It is not difficult with our present knowledge to form an idea of the extent to which the interchange between the nutrient material of the blood and the tissues may become influenced by such alterations in the condition of the vessels, when we remember that the normal permeability of the endothelial lining for gaseous substances and solutions may give way in the one extreme to a state in which it becomes permeable to the plasma and even to the organized elements of the blood themselves, while on the other extreme the endothelium may be so altered that the ordinary interchange of matter appears either reduced in quantity and quality, or is rendered impossible and ceases entirely. This is not a theory based upon suppositions and conclusions, but a truth founded upon facts accessible to observation. These conditions, although commonly of a transitory nature, may assume under certain circumstances a chronic and permanent character. In the one case the anatomical change consists in a contraction and an induration of the endothelial lining of the vessels, associated with a slow infiltration of the cells with substances from the normal waste of the tissues, by which the interchange of matter between the tissues and the blood becomes impaired. In farther advanced stages this material may be deposited in the perivascular spaces and accumulate in the surroundings of the vessels forming the groundwork for neoplasms and cell proliferations. In the other case the nutrient ducts are abnormally dilated, which favors more or less rapid changes in the state of fullness of the vessels, fluctuations between capillary engorgement and anæmia. They are marked, in general, by an increase of interchange of matter in the parts affected at the expense of the tissues involved.

Both these conditions are most intimately connected with the two primary forms of insanity, the former generally with the symptoms of melancholic, the latter with those of maniacal excitement. In the development of these conditions the most various causes may play an important rôle. They are either of primary nature or the result of pathological processes extending from other organs of the body into the nervous centers. In the former case the causes are of purely nervous origin. In the latter case there are three causes from which the alterations referred to may originate, viz: 1, changes in the composition of the blood and all those affections which produce such changes; 2, Tuberculous infiltration and 3, Syphilitic infiltration.

The effect of changes in the composition of the blood upon the nutrient vascular system of the nervous centers, will be understood and can be estimated when we remember that all organs of the body suffer more or less from the influence of the affection. The morbid constitution of the blood, aside from the structural changes in the vessels and their results, adds to the deficiency in the proper nutrition of the tissues involved. In the brain, in these cases in such conditions, the peculiar vascular arrangements, the division into small areas of nutrition by the large number of terminal arteries, favor an unequal distribution of the blood, the development of transitory local hyperæmia or anæmia, of serous exudations, of local inflammations, even of hæmorrhages. All forms of chlorosis and anæmia are liable to produce these conditions, as leucocythæmia, oligocythæmia, hydræmia and anhydræmia, progressive pernicious anæmia, pyæmia and septicæmia. Of other diseases connected with alterations in the composition of the blood may be mentioned: the acute febrile processes; as pneumonia, pleuritis, acute articular rheuma-

tism, insolation, meningitis; further, infectious and epidemic diseases; as scarlatina, variola, intermittent fever, typhus, erysipelas, pellagra and toxications; as alcoholism, absynthism, chloroformism, chloralism and saturnism. The forms of mental disturbances associated with these affections, or following them, are delirium, melancholic and maniacal excitement and their sequences. In the first the vascular districts, principally affected, are those located in the temporal convolutions; in the second and third they extend over the parietal and the anterior and posterior central convolutions, and in the fourth involve also the frontal lobe and the base of the brain, including the pons and the medulla oblongata.

The structural changes produced in the vascular system of the nervous centers by tuberculous and syphilitic infiltrations are well known, as they are of a marked character and interfere gravely with the normal functions of the vessels. The tuberculous infiltrations produce lesions more locally confined, and severely attacking the capillary ducts; in the syphilitic the whole arterial apparatus is more likely to be involved and may thus lead to extensive changes in the whole nutrient system. In both these conditions the final effect is always a diminution in the interchange of matter which is therefore prominently associated, with symptoms of mental depression, alternating in the latter not unfrequently, with periodical states of delirium and subacute maniacal excitement.

We proceed to the class of causes of purely nervous origin. It is well known how readily the whole circulatory apparatus responds to unexpected or unusual irritations of sensory and other nerves. Since by these, first of all, the regular contractions of the heart are affected, it shows that, aside from the intra-cardial innervation, which controls the normal rhythmic move-

ments of the heart, other extra-cardial innervations exist, through the influence of which the heart's action may, according to circumstances, become accelerated or arrested. With similar arrangements, viz., a peripheral as well as a central innervation the whole vascular system is provided. In both the innervating fibers of the latter, in their course combining with fibers of the sympathetic system, center in a number of grey nuclei, located in the lower and in the middle third of the medulla oblongata. All these centers are connected by sensitive fibers with the psychical tracts of the brain. They are withdrawn, however, from the direct influence and control of the psychical operations, and, as it seems, are rendered irritable solely by blood stimulation. In their relations to mental processes, therefore, the facts point toward a chemical mode of action, viz., by the development of certain compounds in the blood, as the result of those psychical irritations, by the action of which, in a given case, the one or the other of the circulatory centers, by special affinity, becomes excited. This theory, supported by recent interesting discoveries, may, however, at present, be apt only to pave the way for a conception of the facts; yet the main undisputed point is the involuntary influence of psychical irritations upon the circulatory apparatus. In cases where these influences are of prolonged duration and sustained, as occurs most frequently, by states of general ill-health from overwork, care and anxiety, by neglect of the ordinary requirements of life, or by excesses in the one or the other direction, they are of course most liable to be reflected upon the vascular system, and there produce all those changes of a permanent character, with their results as already referred to.

In order, however, to fully appreciate the significance and extent of the influence of these psychical irritations, it is necessary to recollect that the psychical tracts and centers in the brain, aside from their direct communications with the special sensory apparatus, by sensory fibers, are likewise connected with each organ of the body, or part of it, through fibers of the sympathetic system. By this arrangement, reflex irritations from all organs continually take place in the psychical tracts, giving rise, in proportion to the normal or abnormal state of function of the former, to feelings either of well-being, of pleasure or of discomfort, or even of pain. Not to feel any organ, is considered, according to the vulgar opinion, an evidence of perfect bodily health. This, however, does not mean the entire absence of all reflex irritations in the psychical centers, but the presence of those only by which the feeling of the entire harmonious function of all organs is created. In the opposite case, these irritations, when of inharmonious character, and pointing toward disturbances of function in the one or the other direction, are felt as a constant strain upon the mind, whereby its operations are seriously interfered with, and more especially those which are not under the direct control of the will. This is the great source of the numberless so-called sympathetic affections in which, by transmission through the nervous system, morbid conditions are transferred from one organ to the other. Underlying all these, we have, first of all, circumscribed disorders in the circulatory system of the organ, as that, most easily affected by nervous irritations; and following which, disturbances of nutrition, assimilation and secretion are developed by sympathy.

In regard to affections of the vascular system of the brain, therefore, and their consequences, the effect

should not be under-estimated; for example, of diseases or injuries of peripheral nerves, of heart diseases, of affections of the digestive tract, of helminthiasis, of diseases of the liver, the kidneys, the sexual organs, of pregnancy, puerperal diseases and lactation. The degree and the extent of the reflex irritations thus produced are, of course, subject to great variations and dependent upon uncontrollable circumstances, because they depend on the physical and psychical individual constitution, and upon the existence or non-existence of neuropathic predisposition. Before all these causes, however, the primary affections of the psychical tracts, of psychical origin, here come into consideration. To these must be reckoned states of congenital mental weakness, habitual lack of self-control and mental excesses of all kinds, over-straining and over-work on the one side, idleness and defective mental and moral training on the other.

As the final effect, then, of morbid conditions of the vascular system of the brain producing palpable changes, we designated disturbances in the nutrition proper of the tissues of the organ. These may consist, perhaps, at the outset, solely of changes in the molecular constitution of the living cell protoplasm. These processes are beyond observation and can not be followed up, since molecular pathology is still but a problem in science. This seems to have led to an attempted distinction between so-called functional and organic affections of the brain and the nervous system, which ascribed the former merely to the chemico-pathological processes, the latter to alterations in the formative elements of the organ. Yet, the necessary assumption of the unity of form, composition and function in an organic entity, does not justify this distinction, and where functional disturbances can not be proved as being

concomitant with structural changes, this should be attributed rather to the insufficient means and methods of demonstrating their presence. Indeed, improvements in the latter have constantly diminished the number of such cases and greatly enlarged our knowledge of the more minute histology of the parts in question, and of the changes to which their elements are subject. It is, at present, almost universally admitted that the more complete and accurate investigations of this kind are carried out, the more frequently they lead to the discovery of palpable products of pathological processes, where some years ago none were detected. This has especial reference to the brain and its affections in cases associated with insanity.

The view has been entertained that the structural elements observed to be affected, next to the vascular system in the brain of the insane, were those of the connective substance, the so-called neuroglia. This is not quite correct so far, at least, as the primary and acute forms of the disease are concerned, and particularly those of purely nervous origin as explained above. In these cases, even in the very beginning, the cortical nerve cells themselves present changes of a very marked character. These cells are located in the middle stratum of the grey cortical substance of the convolutions of the brain. This is lined toward the peripheral arch by a layer of neuroglia tissue of reticulated structure, built up of the delicate, manifold interwoven, fibrous processes of irregularly star-shaped corpuscles. Toward the centrum ovale the middle stratum is bordered by a tissue containing small polygonal cells provided with very fine ramified processes. The nerve-cells themselves in the middle stratum are pyramidal bodies running out, in a perpendicular line, toward the upper layer of neuroglia tissue, in a pointed

conical prolongation of considerable length, while they emanate from the base, in the opposite direction, a variable number of smaller processes which divide into the most delicate rootlets. The matrix in which all these cells, as well as those of the other parts of the grey cortex are imbedded, consists of a tissue of a felt-like texture, which after death, in carelessly preserved specimens, appears as of molecular constitution. The pyramidal cells can be divided, according to shape and size, into two classes. The smaller ones, more uniform in size and greatest in number, occupy the upper stratum of the layer, the larger of a more elongated form, the lower stratum. The latter vary much in size, and occasionally, in all convolutions of the convexity of the brain, some single cells of extraordinary magnitude may be found here and there.

No other law of organization as to the distribution and the arrangement of these cells has been thus far detected. On the contrary in this respect the greatest variety seems to prevail not only in the individual convolutions, but also in the convolutions of the brain of different individual beings.

The white fibers of the centrum ovale terminate in the same layer, radiating towards the peripheral hemisphere of the convolutions after having entered the middle portion of the convolutions in solid masses.

Their mode of termination is by breaking up, dividing and subdividing into the most minute fibrils. The finest of these fibrils are interrupted by, or have on the line of their course, small spherical bodies, in one of which they finally end. These are the ultimate organized elements, distinguishable by the use of high microscopic powers; they are indeed so minute that they are incapable of direct measurement. This mode of termination of nerves in the central organs is in essence the

same as that of the fibers which enter the posterior grey centers of the spinal cord and the medulla oblongata. There is no apparent connection between the nerve cells and these fibers in so far that the axiscylinder of the latter seems to be a direct continuation of one of the protoplasmic processes of the cells. This latter has only been observed in the case of the cells and fibers of the anterior grey horn of the cord.

The terminal points of the fibers constitute the whole area of the middle layer of the convolutions above the area containing the polygonal cells. Some of them seem to enter even the upper layer containing the star-shaped corpuscles, so that there is possibly a communication with the peripheral prolongations of the pyramidal cells; while others terminate in the districts of their basal processes. The grey layers of the convolutions, as well as the white fibrous strata, contain furthermore numberless round and slightly oval cells, the so-called nuclei of the neuroglia. They vary in size and are perfectly circumscribed without any attached processes. And, to conclude this brief histological sketch of the grey cortex, it remains to mention the lowest layer in which spindle-shaped or bi-polar cells are located, arranged in such manner that their longitudinal axis is parallel to the course of the arching fibers by which neighboring convolutions are connected with each other.

In regard to the functional significance of the different cells and fibers all is more or less hypothetical. Even the question whether the neuroglia tissue is of nervous nature or not has not been decided. In its anatomical constitution it closely resembles the nervous tissue. Its finest organized elements can not be distinguished from those of the latter, and it is not improbable that it forms, with the whole nervous system a continuous network, impregnated by, or suspended in a solution of

saline and albuminoid substances. Concerning the nerve fibers there is no doubt that they are the connecting medium between the peripheral and the central expansions of the nervous system, and as such the conductors, both of inward and outward impulses. They are the site of specific energies and the prototypes of functional localizations, and it seems natural that the single fibers or groups of fibers retain their characteristics up to the finest ramifications and terminate in the grey matter with their specific energies. As far, therefore, as their districts of distribution are concerned, the division of the brain into different areas of function or areas of different function appears to be a correct interpretation of nature. This explains also the results of the various physiological experiments by which the existence of intimate relations between certain groups of the convolutions of the brain, or even of small districts in the convolutions, to the special peripheric sensory expansions, or to certain groups of muscles have been demonstrated. Yet these experimental data should not claim to prove anything else than the fact that the observed effect was produced by the excitation, the destruction, or the removal of the ultimate terminations of the nerves themselves. At all event no conclusion can be drawn from them in regard to the functional energies of the other nervous elements or their participation in the production of the phenomena. Even when, for instance, the galvanic irritation of the grey cortex has shown that this or that system of muscles can be set in motion from this or that limited spot, in the one or the other convolution, this does not exclude the possibility or even the probability, that the same effect can be produced, by nerve force, from any other point of the grey cortical substance. Indeed the latter seems to be so necessary a demand that no other idea of the plan of organization

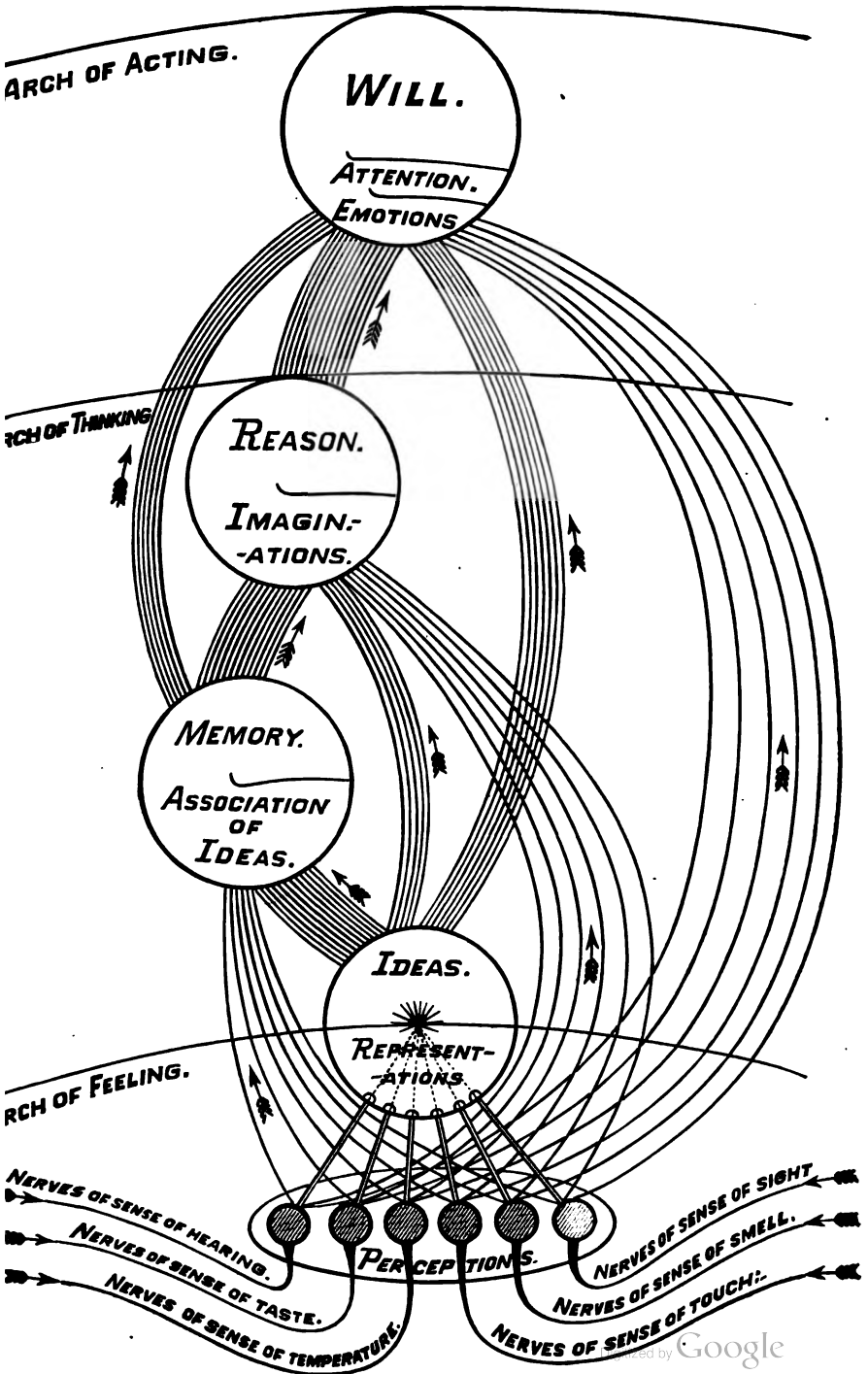
can reasonably be entertained than that, which acknowledges the existence of universal connections in the force-generating parts of the nervous centers. And this is more especially true of the nervous organism which is involved *par excellence*, in the development and the manifestations of mental energy and activity. This is of course, presumed to be the general plan of organization, according to which, for example, each part of the psychical tracts and centers, in conformity with certain laws of organization, can be excited by inward impulses from any part of the peripheral nervous expansions and, vice versa, transmit outward impulses to any part by simple reflex action or by reflex-operations controlled and modified by volition.

In a special sense, however, the greatest variations undoubtedly exist in the mode in which this plan, *de facto*, is carried out. There must be, indeed, as many differences in the inner connections and the courses of the psychical tracts, and the seat of the psychical centers, as there are differences in the individual natural dispositions, in natural development, in mode of education and degree of culture. The localizations in the psychical tracts and centers should, therefore, be regarded as so largely constituting the outgrowth and product of individual organization, that there remains but little hope of acquiring a more intimate knowledge of the apparatus and its workings in the direction of physical investigation and analysis. The application of psychological facts, however, arrived at by self-observation and the study of normal and abnormal mental manifestations, renders it possible to form an idea, at least, and to picture the apparatus and its inner organization, in general outlines. Such a picture, it is true, can not pretend to be more than a product of thought and fiction; yet, every one who entertains the

view, that science is advanced not solely by the collection, acknowledgment and arrangement of facts, will admit the right of theoretical speculations upon an analytical basis, whenever they aim to promote a closer insight into the relation of facts and phenomena which are not capable of immediate explanation. As a graphic method of demonstration, when practicable, greatly aids the verbal exposition of a subject, I have constructed a diagram of the central inward psycho-physical tracts and centers of the brain of man, which is designed to give a picture of their possible arrangement and supposed connections. For the purpose of simplification, the principal tracts and centers are alone outlined in the figure.

The diagram consists of circles, which represent the psycho-physical centers, in a sense to be explained hereafter, and of lines or bundles of lines showing the tracts by which the centers are connected with each other.

The six small circles at the lower end of the figure, surrounded by an elliptical line, represent the points in which the central sensations from inward impulses, viz.: the perceptions, take place. They also represent the areas of the termination of the six different groups of sensory nerves in the grey cortex of the brain, viz.: of the nerves of the sense of sight, hearing, smell, taste, touch and temperature. These areas seem to be situated, according to results obtained from physiological experiments, in a pear-shaped section of the brain, embracing the convolutions of the Sylvian or temporal, the parietal and the occipital lobe, and are regarded by many as the centers of perception in the brain. The correctness, however, of the facts and their interpretation, upon which this theory is based, is still disputed. But even admitting the facts, it does not necessarily follow that these terminations of the respective



nerves represent their ultimate expansion in the grey cortex, nor that the centers of perception are confined to a nervous organism located in the convolutions above specified. The phenomena connected with the experiments, at least, as described by different experimentalists, are no other than would follow traumatism, partial or entire destruction of the respective nerves at any point of their course below their central terminations. And since no one is willing to believe that in any of the experiments an injury or extirpation of the grey cortical ganglia alone was effected, without at the same time injuring or removing the nerve-endings which spread out in the same area, it remains a moot point to the effect of the injury or removal of which of the two elements,—the ganglionic cells or the nerve-endings,—the phenomena, are to be ascribed. The expressions therefore employed in order to designate their nature as, for example, “psychical blindness, psychical deafness, psychical anæsthesia,” etc., are as inapt and misleading as the terms, deduced from them and applied to the respective places in the convolutions, as “perceptive center of the sense of sight, of hearing, etc.” It seems altogether a difficult undertaking to detect in the group, which the phenomena present, anything more than the effect of partial or complete sensory paralysis. The existence of localizations of psychical functions, as confined to certain convolutions, has by no means been demonstrated by these experiments, and, in this connection, it may be well to remark that the circles in the diagram are not to be regarded as centers in that sense.

The circles of perception in the figure are connected by straight lines, pointing toward a common center, with the circle designating the place where the representations and ideas are formed, as the result of combining single and different perceptions into a whole. Of these the ideas

signify the products of the higher stage of psychical function. The circle, in order to indicate this, is crossed by a line marked "arch of feeling" which leaves the representations, as conceptions of a more general and one-sided character, in closer relation with the sphere of simple sensations and perceptions, whilst with the formation of ideas, as symbols of individualized conceptions, we gradually enter the sphere of constructing thought.

The next circle upwards represents the centers of association of ideas and of memory. The intimate relation of the two to each other justifies their juxtaposition in the figure. The circle communicates with that of ideas and representations by a main tract, which is designed to show that the latter are reproduced in the higher center. Here they are arranged in series of different order and succession according to laws of natural or artificial relation, or in accordance with empirical rules and regulations which, in each case, are the issue of individual development, self-training and education. Yet, it is a matter of daily experience that neither memory nor the lines of thought are moved solely by ideas and representations. On the contrary, as everybody knows from self-observation, they are, to a large extent, continually stimulated by simple sensations and perceptions. Hence it is evident that a direct relation must exist between them and the perceptive centers, as well as the central expansions of the sensory nerves. These are marked out in the figure by lines directly connecting them with the circle of memory and mental associations. The active formative influence of these direct stimulations of the latter upon the facts of memory and the nature of the associations, is a factor not to be under-estimated in the manifestations of mental life. In infancy they apparently constitute the foundation, and in early youth they exert a determining power in the development of both.

In the following circle reason has its site, and its auxiliary, imagination, the reproducing agent of the facts of memory and the mediator between reason and associations of thought, and without the aid of which no judgment or reason could operate. In reason man acknowledges the highest and most independent psychological function. Here the aim is to point out rather its dependency on the facts of memory and mental associations, and on its direct stimulation from the centers of ideas, and even of perception. The influence of these upon the construction and development of reason and thought is as universally important as the influence of metaphor upon the construction and development of language, and is the most plastic factor in the mental life of the individual as well as of nations, and races. This is not the place to follow up this subject any farther, but it will be conceded that language in fact is the organism through which reason manifests itself, that is, not the articulate or inarticulate sound of human speech, but the idea, the thought which is transmitted with the sound. Language may be called the image of reason, and the facts of its evolution, as preserved in the various modes of human speech, are the reflex of the history of reason in the history of mankind, from the loftiest revelations down to absurd developments of morbid human thought and imagination. Taking all this into consideration, it is evident that the measure of reason must be readily applicable to all the mental operations hitherto considered. In the circle of reason therefore, as indicated in the figure, terminate, aside from the main connection with the circle of memory and mental association, tracts from all the subordinate centers mentioned above.

With the circle of reason the sphere of thinking closes and we enter that of acting, occupied by the circle of

volition with its predisposing associates, attention and the emotions. The latter two may be aptly considered as direct incentives of volition, as apparently no act of the will can be executed, if not preceded and dictated by emotions and directed by attention. Their location in the figure seems therefore justified. In the regular course of the psychical processes volition is stimulated as well as controlled by the power of reason, which relation is indicated in the diagram by the main connection of the two. The remaining lines connect the circle with each of the lower centers separately, in order to show their intimate relation to these latter, and the possibility of direct transmission of impulses from them. Proof of the existence of such connection, as well as of the great power which they exert upon emotions, attention and will, are a matter of such daily experience that it may suffice to merely mention the fact.

As will be seen, only the inward or centripetal psychical tracts are outlined in the diagram, and even in this respect, the picture does not pretend to be more than a sketch. But it will be found useful, for our main purpose, to render possible an analytical and synthetical conception of the nervous organism, which is concerned in the manifestations of mental life, and to bring the phenomena of so-called mental alienation, or aberration of mind, at least for a part, within the reach of physical explanation. In this connection I would first of all have it borne in mind that this nervous organism is to be considered as a part of the whole nervous system, and subject to the same physical laws. No one will dispute the fact, that an injury, artificially produced or the result of morbid processes, of a sensory, motor or secretory nerve-tract, involves, in proportion to the extent of the injury, a paralysis of

the nerve, and an impairment or cessation of function in the sensory, motor or secretory organs of the body with which the respective nerve is in connection. Essentially the same thing takes place, when, instead of the nerve itself, its peripheral or central expansion is the site of the injury, since we have no means of proving that, for example, a physical power of vision, or hearing, etc., exists independently of the psychical, although some modern physiologists seem inclined, as we have seen above, to make this distinction.

I propose to consider the central nervous organism from a similar point of view, and whether it be regarded as a direct continuation of the central nerve-expansions, or as an independent organism only set in motion by impulses from the latter, is of no importance. In the organism we have cells or ganglionic bodies, centers for the generation of nerve-force—in the sense of the conversion of forces—and for localization of function. Their processes of life must stand in direct relation to the development and manifestation of psychical life. We have fibers, the grey commissures or tracts, conducting the nerve forces whereby relations between the different ganglionic bodies are maintained. These are the characteristics of the grey matter in all parts of the nervous system. The picture of the psycho-physical organism presented in the diagram, refers only to those located in the grey cortex of the convolutions, where a great number of such organisms are supposed to exist, being of different order and significance, according to their direct or indirect dependency of and relation to each other and to the central expansions of the nerves of sensation in the grey cortex, of which, for the sake of simplicity, the special sensory nerves only are marked out in the picture.

Under normal circumstances all tracts and centers outlined in the figure are presumed to be in operation, and this full co-operative mental activity represents in the life of man the state of being conscious of individual existence. The question is, what would be the effect of an interruption in one or other of the tracts delineated in the figure? This is a perfectly legitimate inquiry inasmuch as we are daily witnesses of one phenomenon which points towards an interruption somewhere in this organism, whereby man is rendered unconscious of his existence for about a third of his lifetime. I mean sleep. An examination of the figure and a consideration of all the phenomena connected with sleep will at once disclose the seat of this periodical interruption. Communication with the external world is not entirely interrupted during this condition, as there is a prompt response to all kinds of sensory irritation. Dream-life with its accompaniments shows, furthermore, that the whole organism above the centers of perception remains intact. Recollection of ideas and their associations, memory, imagination, reason, emotions, attention, will,—these may all come into play in a dream. Moreover, we have conclusive evidence of the existence of a stimulation of the three upper circles from the perceptive centers, since the effect of light on the closed eye, of a sound, a touch, etc., upon the production of dreams and their course are a matter of universal experience. The tracts, therefore, between the perceptive centers and the circle of the formation of ideas, remain as the only possible seat of this breach of continuity. This seems to be in entire conformity with all the facts observed, since all perceptions which take place during sleep, are apparently not recognized as an existing reality, that is, they are not combined with their corresponding idea, and as soon as this is

perfected, sleep vanishes and the consciousness of individual existence in relation to the external world is fully regained. The processes by which this periodic interruption is effected, and especially at the point in question, is still a mystery. Yet, the chemical theory of sleep, as it might be called, which associates the two opposite states of waking and sleep with changes in the nature of chemical processes in the grey cortical ganglia, or with the constant changes in the proportion of the two different processes of accumulation (of intra-molecular energy) and dissociation, may afford the basis of a future explanation. The changes in these processes seem to be directly dependent upon the presence or absence of inward impulses and upon variations in their intensity. Those of dissociation prevail under the full operation of inward impulses, during waking, those of accumulation when these impulses are disappearing or cease, as during sleep. As far, at least as the actual relation of the individual to his surroundings is concerned, the correctness of the explanation given, will not be gainsaid. The phenomena of physical and psychical fatigue and exhaustion, it is true, point also to influences of deeper origin and the existence of causes which may independently produce the changes referred to, yet this does not reduce the importance of the former, as it is nothing more than an instance of the reciprocity of causes and of phenomena found everywhere in nature.

An interesting case, proving the correctness of the theory advanced here, has been recently given by Dr. Strümpell, of Leipzig,* which is worth quoting in full:

"In autumn, 1876, there was received into the Medical Clinic of Leipzig, a youth aged 16, in whom various phenomena of anæsthesia gradually developed themselves, to an extent which has very rarely been observed. The skin of the whole surface of the

* Pfüger's Archiv. für Physiologie, Vol. xv, p. 573.

body was completely insensible, and that in respect to every kind of sensation. The most powerful electric current, or a burning taper held to the skin, was not able to produce any pain, or even a sensation of touch. Almost all the accessible parts of the mucous membrane of the body exhibited the same insensibility to pain. Also, all those sensations which are classed together under the name of 'muscular sense,' were entirely absent. The patient, when his eyes were closed, could be carried about round the room, his limbs could be placed in the most inconvenient positions, without his being in any way conscious of it. Even the feeling of muscular exhaustion was lost. In addition, there came on also a complete loss of taste and smell, amaurosis of the left eye and deafness of the right ear. In short, here was an individual whose only connection with the outer world was limited to two doors of sense—to his right eye and his left ear. Moreover, both these remaining doors could at any time be easily closed, and in this way it was possible to investigate the consequences of completely isolating the brain from all external stimulation through the senses. I have frequently made the following experiment, and often showed it to others: If the patient's seeing eye was bandaged, and his hearing ear was stopped, after a few, usually from two to three minutes, the expression of surprise and the uneasy movements which at first showed themselves, ceased, the respiration became quiet and regular; in fact, the patient was sound asleep. Here, therefore, the possibility of artificially inducing sleep, at any time, in a person, simply by withholding from the brain all stimulation, by means of the senses, was realized. The awakening of the patient was as interesting as the sending him to sleep. He could be awakened by an auditory stimulation, as, for example, by calling into his hearing ear, or by visual stimulation, by allowing the stimulus of light fall upon his seeing eye, but he could not be awakened by any pushing or shaking. If he was left to himself, he did eventually wake up of his own accord, in course of the day, after the sleep had lasted many hours; the awakening being due, it might be, to intrinsic stimuli, started in the brain, or it might be to slight external unavoidable stimuli, acting through his still functional sense organs, and making themselves felt, in consequence of the sensitiveness of the brain being increased during the repose of sleep."—(*Nature*, December, 1879).

Let us now consider another phenomenon of psychical disturbance of every-day occurrence, namely, intoxica-

tion. Every one who has either had individual experience, or who from close observation of others, knows that the first effect of an overdose of alcohol is a diminished sensibility of all the senses or of the perceptive powers. This goes hand in hand with an increase of activity in the inner parts of the nervous organism in the grey cortex of the brain, which presents itself as a state either of exalted or depressed commotion and is always followed by a decrease, and finally an entire arrest of all psychical manifestations. The interruption in the beginning evidently concerns, therefore, all the direct tracts in the figure which run out from the perceptive centers, although these are probably never entirely isolated. In the further advanced conditions the interruption spreads gradually out over all the tracts in an upward line. At first there is a decrease in the formation of ideas; then memory begins to fail and the associations of ideas become disturbed. Later on imagination governs reason and judgment, and after the separation of these, emotions or a sudden arrest of attention may incite the will, and the strangest and most unexpected acts may be committed, before the whole organism comes to a stand-still. The condition in chronic alcoholism is in perfect accord with this picture. The affection extends over the whole central nervous organism, all the connections are impaired and loosened, and herein lies a distinction between this condition and insanity.

Suppose now that in a given case the main tract between the circles of reason and of will is interrupted. According to the opinion, expressed in the foregoing, of the existence of numerous or diffused nervous organisms, of the kind described, in the grey cortex of the brain, this supposed separation of reason and will must of course not necessarily be understood as universal. Here

it has sole reference to a special matter which predominates in the mind; as no one can serve two masters at the same time. In this case the stimulation of the will would entirely depend upon, and be governed by, impulses from the center of memory and the association of ideas, the center of the formation of ideas and the different centers of perception. By excitation, therefore, from the lower centers, the will could be incited to any abrupt action, which would have for its only controller and regulator the influence of the facts of memory and mental association. Yet, even the latter connection may be suspended, and the will thus become the plaything of each rising idea, or even be induced to action by a single sudden perception.

In the first case, therefore, the impulses from the circle of ideas and directly from the perceptive centers are only in so far identified, as they are facts of memory, or as they may be connected with mental associations at immediate disposal. In the second, however, they are apt to be entirely misconceived from the beginning. This, of course, refers to the identity of persons as well as of things, and of every kind of sensual impression. Both conditions are characteristic of primary insanity, and there is frequent occasion to follow up in the progress of the disease the transition from the first state into the second.

Suppose, in another case, the main tract between the circles of memory, etc., and of reason be interrupted. Here the only impulses which would reach the latter would proceed directly from the circle of ideas and the centers of perception. Reason itself would thus be made the puppet of these latter, and the will, under its control, would display incoördination in all its manifestations, only exhibiting the influence of method as long as there exists a direct stimulation through the still

unimpaired tracts from the circle of memory and mental association. The simultaneous interruption of the latter would render the incoördination complete and the abrupt and isolated operations of imagination and reason become the source of delusions and illusions. Both conditions are, as is well known, elementary phenomena of insanity. Their symptomatic significance, as well as that of the two above described, must be considered dependent upon the rank and order and perhaps the number of the nervous organisms thus affected.

We proceed to cases in which the main tract between the circles of ideas and memory and mental association is supposed to be the site of an interruption. In these cases the higher centers in the organism would remain almost entirely unimpaired in their operation. Yet the ideas conceived, would not form part of the facts of memory and mental association, but be directly transmitted to the centers of reason and will, and there induce an independent stimulation. They would appear more or less isolated, out of place, and apt to be apprehended as something unreliable and dubious. If the interruption extends over the direct tracts between the circle of ideas and those of reason, a feeling of an entire uncertainty of things, associated with fear and anxiety, would be engendered. And in the event of complete separation from the higher centers, the nervous organism would approach a dream-like condition, with the senses active, with a perhaps correct exercise of reason, yet without true appreciation of facts concerning the relation of the individual to the external world. The direct impulses from the perceptive upon the higher centers would not be correctly identified, and thus become the source of innumerable errors and the cause of hallucinations.

It is not my intention here to discuss this matter in detail, and to go through all the varieties of interruption of the tracts which could possibly be supposed to occur, or to exhaust the subject in any way. This would involve the necessity of a much more complicated figure, if not an entirely different arrangement. It is here merely attempted to represent the inward psychical tracts, without any reference to motor phenomena, not even those expressed through the organ of speech. I have also purposely avoided citing special illustrations, etc., since the time for the application of such a method of demonstration in Psychiatry has not yet arrived. The sole object was to show, at least, the possibility of explaining phenomena, so familiar to us and yet so veiled in mystery, by simply applying to them the same principle which holds good in the physiology and pathology of the nervous system in general.

The most important task, of course, remains unaccomplished, that is to furnish proof, from direct anatomico-pathological investigations, of the right to apply the principle. In this connection, indeed, only very little can at present be offered, yet perhaps just enough to justify the attempt here made.

I have stated above that in cases of acute primary insanity, next to the lesions, observable in the vascular system of the brain, palpable changes in the ganglion cells of the grey cortex, themselves, had been discovered. These changes concern, first of all, the basal prolongations of the pyramidal cells which, as described in a former article,* undergo a process of coagulation or gradual contraction, until they may disappear almost entirely, and assume the appearance of small, knobby protuberances of the protoplasmic body of the cell.

* AM. JOURNAL OF INSANITY, January, 1881, p. 285, ff.

This peculiar change in the cells seems to be of interest from more than one point of view: On the one hand, in so far as it concerns the protoplasmic terminations of the cells toward the points of the central expansions of the nerve-fibers in the same districts of the grey cortex; and on the other, as the character of the change seems to indicate a breach of continuity or of the intimate relation between the two important elements in the nervous organism, the cells and the fibers which are destined to act upon each other. This coincidence of circumstances apparently constitutes what we desired to demonstrate, viz.: an actual interruption in the nervous organism concerned in mental operations at a most important point. This, it is true, is a single fact, which can not yet be placed in proper relation to any phenomena of a distinct and defined nature, but it is nevertheless of constant occurrence, and at present of unlimited significance.

It would appear to be incumbent upon us in future to keep a record in each case of the convolutions in which ganglion cells thus affected are found, to note the class of cells and, as far as possible, the extent to which they are involved. Every one, however, familiar with this kind of research will acknowledge the difficulties of such an undertaking. We have at first to deal with a tissue of such natural softness, and which is, like all soft tissues, so easily decomposable, that we are either compelled at once to employ chemical solutions, which prevent their decomposition and render it more solid and more easily manageable, or we must immediately undertake the examination of the fresh tissue by using all precautionary measures to keep the specimen as long as possible in an unchanged condition. This last method, described in the article before cited, seems to promise by far the best results. Yet

only in a few cases have I myself been able to carry the examination entirely through to my own satisfaction.

No important conclusions, it is true, can be drawn from the facts of a few examinations, even though complete. It may be said, however, that the results thus far obtained, although in conformity with the localization of disease, do not sustain the theory of localized psychical functions in the brain, which would place the different faculties of the mind in different sections of its organ. Nevertheless, it is a matter of fact that the cerebral convolutions are not all of equal significance in their relation to psychical processes, but this disparity refers solely to the nature and the order of these latter, and not to supposed faculties of mind. Thus the facts of pathological topography seem distinctly to support the division of the surfaces of the hemispheres into at least three sections of different order. These are, first, a pear-shaped section, embracing the temporal, the occipital and the parietal convolutions; secondly, a triangular section composed of the central and prae-central, and thirdly, a hemispherical section, formed by the frontal convolutions. As regards the nature and signification of the nervous organisms located therein and concerned in mental operations, they would follow in a line drawn from the temporal and the occipital to the frontal development of the organ. The first section, apparently, embraces the districts in which the first central terminations of the sensory nerves are situated, that is where the central organism of mind enters into direct relation with impulses transmitted from the peripheral expansions of the nervous system. In regard to the second section the correctness of the interpretation, whence it has received the name of the motor area of the brain, is more than doubtful; at least, it throws no

light upon the nature of any psychical processes connected with operations in these parts of the organ. From pathological observations, it can not be questioned that lesions situated in this section are commonly associated with severe psychical derangement. Yet the application of the right measure to special phenomena of this kind is still a problem, however not incapable of solution, as opposed to others, connected with it, the solution of which will perhaps ever remain impossible.

CASE OF EXTRA AND INTRA-CRANIAL CARCINOMA.

BY M. M. BAGG, M. D., UTICA, N. Y.

F. G., aged 13, was received into the City Hospital, at Utica, July 9, 1879, having a tumor on the head, posterior to and somewhat to the left of the vertex. His mother was then in an advanced stage of phthisis, and has since died; his father died of Bright's disease, and his father's father, as it is said, of tumors, that were thought to be cancerous. The boy himself had been tolerably healthy until about three months previous to his admission, when he suffered for about ten days from intense pain in the head. This afterward subsided and left him, for a time, in apparent health. For a single day, he was employed by a druggist in mixing dyes, including picric acid and other poisons, from which employment he returned home quite sick, with vomiting and renewed pain in the head; and was soon afterwards taken to the hospital. When received, there was a swelling on the head, of moderate dimensions, without pain, heat or hardness—such a swelling

as might have resulted from a fall or a blow, and which was thought to be a simple inflammation of the scalp. There was, however, some obscurity of vision, and likewise general muscular pains of a rheumatoid character. The swelling gradually enlarged, extending towards the occiput, and showing no tendency to suppurate. At the same time the feebleness of vision increased till it ended in total blindness, and was accompanied by increasing deafness. The appetite was good, and the intellect unimpaired. An examination with an exploratory trocar, revealed nothing but a little blood, as was true also of a freer incision with a bistoury, made a few days later. The blood was probably superficial in its source, the veins being considerably enlarged. The tumor continued to extend downwards and laterally, and at the same time there was protrusion of the eyeballs, which proceeded to such an extent as eventually to terminate in ulceration of the external coats of the eye. This marked exophthalmos, with the very great impairment of the function of hearing, while the mind remained clear, led to the suspicion of a double tumor, an anterior intra-cranial one, coincident with that upon the scalp, especially as it could not be discovered that the skull was anywhere perforated by ulcerations, so as to make one of the tumors a continuation of the other. This was, however, not confirmed by the autopsy. The increased weight of the head caused the patient to support the forehead upon a table, this being a more comfortable position than a recumbent one, partly by reason of the pressure felt in lying down, and partly from a dyspnoea which now supervened, and which was ascribed to a swelling that had made its appearance upon the sternum, similar to the one upon the scalp, and which, like that, went on augmenting. Fever, by degrees, ensued, the appetite and strength failed, but

though devoid of pain from the time he entered the hospital, except the general muscular pains above mentioned, with his mental faculties unobscured down to within forty-eight hours of his death, and without spasm or convulsion, he gradually declined, and died on the 6th of November.

An autopsy was made thirty-six hours afterward, by Dr. Deecke, Pathologist of the State Lunatic Asylum, assisted by several physicians of the Asylum and the city.

The dimensions of the tumor were as follows: From the root of the nose to the occipital protuberance, $19\frac{1}{2}$ inches; length over tumor, posteriorly, from ear to ear, $15\frac{1}{2}$ inches.

Removal of the integuments disclosed a flattened tumor of a yellowish white color, fatty appearance, and soft cartilaginous consistence, which covered the whole posterior head. This was dissected from the skull and downwards to its base in the lower occiput, where on its inner surface there was found considerable pus with ulceration and softening of the occipital bone. On removing the calvaria, it was discovered that the tumor had penetrated the bone and invaded the left posterior and lateral portion of the dura mater, where it adhered firmly to the skull. After removal, it presented a tumor or rather a series of tumors on its left inner surface covering the brain to the extent, horizontally, of three and a half inches from the posterior portion of the left upper parietal convolution into the temporal lobe, and, vertically, of three inches from the third temporal convolution upwards into the second parietal. The tumors were not in any way attached to the arachnoid and the pia mater, and not connected with the substance of the brain itself. The surfaces of the convolutions were, however, destroyed from atrophy caused

by the pressure of the tumor upon them. The convolutions involved were the following: The middle and the posterior portion of the third, second and first temporal convolutions, the second and first occipital convolutions, the gyrus angularis, the posterior portion of the gyrus supra-marginalis and the posterior portion of the upper parietal convolution, all on the left side. The tumor was a soft carcinoma of a wide meshy stroma, the latter being most prominent at the inner leaf of the dura mater, where it was consequently of a much softer consistence. Here it was exceedingly vascular and had been apparently of rapid growth. The other parts of the brain were throughout normal.

The protrusion of the sternum was not due to the presence of a tumor, but to a decided anterior dorso-lumbar curvature of the spine. The cartilage was thickened, however, and microscopic sections showed abundant cell infiltrations.

The case is of interest in many respects, from its rarity, the obscurity of its origin and the difficulty of diagnosis, from the presence of pain in the beginning and its absence afterward, from the renewed proof it gives us of the relation between phthisis and cancer, and the seeming relation of both to rickets, Pott's disease and other dyscrasia, from the resemblance of the case of the boy to that which is reported of his grandfather. Though detected at first on the skull, and thence apparently extending inward, it was doubtless from the outset a disease of the whole system, and fixed itself simultaneously upon the scalp, the long structures and the brain, selecting these localities in preference to those internal viscera which cancer more frequently invades. The poisonous effects of the handling of dyes a month before his admission can scarcely be thought to have had any influence in causing the disease, how-

ever it may have temporarily depressed the sufferer. And yet it may not be amiss to mention that the ejecta thrown off on the evening of the day he worked in the dyes are said to have been deeply discolored, as were also the secretions from the nose, as seen on his handkerchief for several days afterward, and that when admitted to the hospital he was believed by his mother and family to be under the influence of poison.

An interesting feature of the case is furthermore presented in the relation of the destroyed surfaces of the convolutions of the brain to the symptoms in the sensory sphere during the progress of the disease. There was no noticeable impairment of the ordinary intellectual faculties, yet a gradual failing of the powers of vision and hearing, which resulted in total blindness and increasing deafness. The destruction of the surface of the convolutions embraces, as will be seen from the description given above, the region of Ferrier's so-called perceptive centers of the sense of sight, and the lower portion of that of hearing, and also the cortical districts for the power of vision and hearing as designated by Munk. The lesions in this case were, however, confined to one side of the brain only.

OBSERVATIONS ON THE CRANIUM AND BRAIN OF A HYDROCEPHALIC PATIENT, AGED NINETEEN YEARS.

BY PROFESSOR A. TAMBURINI,
**Director of the Asylum for Insane of Reggio, and of the Psychiatric
Clinique of the University of Modena. 1881.**

The cranium and brain about to be described belonged to a hydrocephalic male; who died at the age of 19 years, in the end of March, 1880, in the vicinity of the Asylum of Reggio.

The little which could be ascertained as to the history and the functional state of the parents, from the physician who had seen him several times during life, and from a short visit made by us a few days before death, may be reduced to the following detail:

F. S. was born in 1861, of healthy and robust parents, who had other children, healthy and well organized. The mother remembers no notable circumstance in the period of her gestation of F. S. At birth, according to the statements of the parents, the cranium was of normal dimensions and form, and he had commenced to walk when one year old; his intelligence appeared to be regularly developing. At the age of two years the parents first observed that his head had commenced to enlarge, especially in the frontal region, and gradually to become heavier, so as to drop towards the chest, and to render walking difficult.

At the age of five years, when the distinguished Dr. Bonasi, medical adviser of the village, who called our attention to this important case, visited him for the first time, he found him with the cranium already of nearly the present size, the vertebral column distorted, as will

be hereafter described, the muscular structure slight, but far from that general atrophy in which we found it shortly before death; he then still preserved a certain capability of movement of the lower limbs, and could also walk a little, though with much effort. The head, however, was still drooping, so that his parents, keeping him always in a sitting posture, procured for him a sort of supporting frame for the head, which they had gradually increased in height according to his growth. The mental faculties proceeded in observable development until his seventh year, when they remained stationary, so that he afterwards had not much more intelligence than a child. Speech, which had begun to be developed at one year old, was arrested at his fifth year, or rather became deteriorated. His sight, after his thirteenth year, gradually weakened; strabismus appeared; and first, at intervals, afterwards continuously, nystagmus.

At the age of eight years, from falling down stairs, he had a severe wound on the left region of the head, with fracture in the fronto-parietal portion of the skull, which was almost immediately followed by convulsive movements of the limbs, especially on the right side, and most markedly in the upper ones. He continued very ill for twenty-five days, but the convulsive movements ceased after the first day. From this time onward the motility of the lower limbs became so much enfeebled that he was incapable of walking, even when held up. Three years later, from a second fall, he sustained a wound in the same region, and the convulsive seizures again occurred, and continued till his eighteenth year, when they disappeared, but were followed by general contracture of the limbs.

When we visited him, we found him sitting; his head was very large, and was bent down, and sup-

ported on a sort of scaffold placed in front of him. His physical condition was reduced to the lowest extremity, so that a complete, objective and functional examination was impossible; however, from the examination made by us, in association with the distinguished Drs. Riva, Seppilli, Buccola, Venanzio, and Altana, and from another made by Dr. Venanzio at another visit, we were able to collect the following *data*, from which we exclude those relative to the cranium and the skeleton and general frame, which will be reported in the autopsy.

Objective Examination.—The emaciation is of the highest degree; the *musculature* atrophic; the skin all over very pale; the abdomen much depressed; many eschars and phlyctenæ on those parts which had been in contact with outer substances; cedema of the hands and forearms, and of the lower limbs.

Voluntary movement in the lower limbs and the whole of the trunk, is absent, but is yet preserved, though much enfeebled in the upper limbs. The limbs are, however, in a state of permanent contracture. The sterno-cleido-mastoid of the right side is contracted, and the face is turned to the left, with the head inclined towards the right shoulder. The mouth is held half open, and the saliva flows from it. The right eye is divergently strabismic; the ocular bulbs are turned much downwards, and are permanently held in this position. It is impossible to elevate them; they are usually turned towards the right (in conjugate deviation), and frequent nystagmus is observed. The dolorific sensibility is tardy, but is still present; the tactile can not be estimated with exactitude, because of the grave condition of the patient. Vision is imperfect, hearing is sufficiently normal, and so are the other senses.

Spontaneous mental extrinsication in the present state is almost *nil*; yet from the monosyllables with which he makes feeble replies, it is perceived that he well understands the questions. As to the rest, so far as stated to us, though his intelligence has but a little exceeded that of childhood, it was yet of such a degree as to enable him to feel affection towards his family, and to comprehend that he was, in his misfortune, "their cross" (*la croce dei suoi*); he gave attention to whatever was done or said around him, and took part in the conversation, if not directly, in at least following the discourse and participating in the sentiments; for example, those of gaiety, when such aroused him. He was usually calm, tranquil and apathetic; he had no maniacal periods. The functions of nutrition were always sufficiently normal; the digestive forces were sufficiently energetic; defecation was rather difficult. Nutrition was of late much altered, and he labored under dyspnœa; his limbs had become œdematous. Respiration is heavy and rhoncal; the pulse small, and very frequent 130. He died on 25th March, 1880.

Autopsy.—Cadaver much emaciated, eschars and œdema in various parts of the body. Stature m, 1,580 (about 5 feet 3 in.)

The cranium very voluminous and throughout equally developed, but markedly so in the frontal region. The face, although fairly developed, yet appears as if hidden under the cranium. We shall hereafter give the measurements and the exact description of the cranium as observed after maceration. In the meantime we may say that we noted, on first view, vascular sulci, very superficial; that of the middle meningeal almost completely wanting on the left; the skull in some points very transparent, as in the frontal region and the right

parietal eminence. At other points some circular areas were observed, in which the skull appeared as if wasted away and reduced to a single osseous table, entirely deprived of diploë, along the coronary suture on the left, and in other points corresponding to cystic hernias of the dura mater. In the left fronto-parietal region, a linear empitment was observed, certainly corresponding to the old fracture, five centimetres long, crossing in an oblique direction the coronary suture, eleven centimetres distant from the sagittal, and describing a light semicircular line, with its convexity downward.

In the examination of the body, we observed the right upper limb more developed in length and size than the left; and so in length the inferior limb. In the vertebral column a hump and distortion in the cervical and dorsal regions; distortion with convexity towards the right in the cervical, and towards the left in the dorsal region. Curve in the lumbar region, in which the bodies of the vertebræ were directed towards the left and forward, so that they came very near to the anterior wall of the abdomen. We shall now give the description of the brain, as it appeared to us in the autopsy itself, and in the later examinations, in which Dr. Seppilli rendered valuable assistance.

Cerebrum.—The cranium having been removed, an abundant quantity of liquid escaped, at first sero-sanguineous (rendered so by the blood issuing from the cut vessels), afterwards serous. The two cerebral hemispheres, yet covered by the dura mater, appeared like a large bladder filled with a fluctuating liquid. The dura mater of the left hemisphere presented in the fronto-parietal region some large patches of tendinous thickness, and in correspondence with the wasted part of the cranium described, a small cyst accommodated

to it, which appeared to be the dura mater extruded at this part.

The dura mater being removed, which was detached with some facility, the two hemispheres, appearing much dilated, remained still full of their liquid, as two large fluctuating bladders, and on their surface the convolutions were seen to be distended, flattened, of enormous length and breadth, and with sulci very shallow. In the left fronto-parietal region, corresponding to the old fracture described, as also to the tendinous thickening and the small hernial cyst of the dura mater, we observed, over an extended area, almost circular, about seven centim. in diameter, the cortical substance had entirely disappeared, and there remained only a very thin covering, which appeared solely of the arachnoid and the pia mater, enclosing here the internal cavity filled with liquid. This extensive destruction of the cortical substance included a great portion of the *second and third frontal* in their posterior and external parts; the margins limiting the destruction presented a notable consistence. The surface of this membranous covering, as also for a certain extent that of the surrounding convolutions, was discolored by patches of a dull, yellow color. Similar patches were discovered here and there on the right fronto-temporal region.

The convolutions which appeared the most enlarged and distended, were those of the frontal lobe (excepting the third in its lowest part) and the central bordering on the fissure of Rolando; the parietal were also distinctly so, but those of the occipital and temporal little or not at all. The greatest antero-posterior diameter of the ascending frontal, on the right, was 45 mm., and on the left 30; that of the ascending parietal 32 on the right, and 34 on the left.

The fissure of Rolando was much to the rear, and had a length of 14 centim. The fissure of Sylvius was much elongated backwards, of little depth, and wanting its anterior branch; the convolutions of the *island* were small, much compressed, especially on the right. The pia mater was everywhere much attenuated, and was adherent to the cortical substance, from which it could not be detached without abrasion of the latter.

In removing the brain from the cavity of the cranium, there flowed from the lacerations of the attenuated and destroyed parts of the cerebral parietes, little by little, all the liquid, of which we were able to collect 1,630 c.c., and we might calculate at full 30 grammes that which escaped in the first opening of the cranium and the removal of the brain; we may therefore reckon at about two litres the liquid which this hydrocephalic cranium contained, and which was, for the greater part, held in this totally excavated cerebral mass, which formed merely the walls of a great bladder. The brain, when removed and almost completely emptied of liquid, weighed only 1,150 grammes. The corpus callosum was reduced to a very thin covering (*velamento*), which was lacerated with great facility, especially in its posterior part; anteriorly it was somewhat thicker. The corpus callosum being lacerated, we looked into two enormous bladders, which represented the cavities of the two lateral ventricles; these measured each (at the cerebral walls somewhat crushed) 250 millim. in length and 135 in breadth, and at the walls elevated and replaced, as when they were adapted to the skull, 185 mm. in their antero-posterior direction, and 78 in the transverse. On examining the various parts of these great cavities, it was seen that the dilatation was paramountly at the expense of the anterior-cornua of the ventricles. In fact, while normally the corpora

striata are situated in the anterior extremity of the lateral ventricles, in such a way that the anterior margin of their head is ordinarily in immediate contact with the wall of the anterior cornu, or is separated from it by a space of hardly 5-10 mm., instead of which, in this brain, the corpus striatum was situate half-way in the length of the ventricle, so that between the anterior margin of the corpus striatum and the anterior wall of the ventricle, there was a distance of fully 8 centim., which therefore presented in all the enormous length of the anterior cornu.

The corpora striata were both of normal volume and form, but completely displaced from their proper direction; each of them, instead of having, as in the normal state, a direction longitudinal and almost rectilinear in antero-posterior relation, with the head touching the anterior wall of the ventricle, and the tail prolonged so as almost to touch the external margin of the thalamus opticus, had, on the contrary, a direction almost completely transverse, with a slight obliquity from within outwards, and from before backwards, the head bent inward and the tail outward, semicircularly, with the concavity inward and its extreme point nearly touching the external surface of the thalamus. The corpus striatum was coasted by a large blood vessel, which sent its branches almost perpendicularly from behind forwards.

The thalamus opticus was not, as in the normal state, in immediate contact with the corpus striatum and separated from it superficially merely by the striate cornua; the thalamus and the corpus were separated by a white substance, of a maximum diameter of two centim., which, to the naked eye, appeared evidently constituted of fibres radiating as a fan from the thalamus towards the corpus striatum. The thalami were much smaller than

normal; the right was a little larger than the left, but quite consistent, with nodules of evident sclerosis of leathery firmness. The pineal gland was notably augmented in size, above double the normal, and was formed of a hard and compact texture. An equal hardness was observed in the bigeminal eminences, especially in the superior, where, on the left in particular, a cartilaginous consistence was apparent. All the sclerosed region, the upper wall of the right thalamus, the pineal gland, the commissure of the thalami as far as the aqueduct of Sylvius, and the superior bigeminal eminences, (also a small portion of the left thalamus,) presented on their surface a dull, reddish, yellow color, which at some points passed into coffee color. This deepened color was particularly noticed at the point between the internal part of the right thalamus, the pineal gland, and the right superior bigeminal eminence. There then existed an area of decided softening, where the cerebral substance was reduced to a pultaceous consistence, and by introducing, for a short distance, a probe, it was perceived to enter a sort of small cavity, containing a semi-fluid matter of gelatinous aspect and dark, reddish, yellow color. A stratum of gelatinoid substance of color analogous, investing the surface, was the material which gave the dark red appearance to the posterior part of the pineal gland and the other parts mentioned.

The middle cornu of the lateral ventricles, cornu Ammonis, was much dilated, and the pes hippocampi was greatly stretched; but no hardening was noticed. The posterior cornu was dilated, but much less than the anterior; this was the only part where there was, between the grey substance and the great ventricular cavity, a stratum of white substance of fair quantity; the point of the occipital lobe appeared, in comparison with the rest of it, thick and rather indurated.

The third, or middle, ventricle was considerably elongated, but narrower than normal, especially in its posterior part, in consequence of the two internal faces of the thalami being very close to each other. The arachnoid and the choroid plexus, between the two thalami, were much thickened, and of fibrous consistence. The anterior part of the fornix was thickened, and the septum lucidum was notably increased in volume. It is also to be noted that while the point of descent of the anterior pillars is ordinarily on a level with the anterior extremities of the thalami, in this brain, on the contrary, it is on a level with the head of the corpora striata; so that it may be said that while these bodies had undergone a separation in their posterior ends, the pillars remained in their true position. Their origins, however, did not proceed exactly around the internal margin of the thalamus, to their descent into the middle cornu, to reach the mamillary eminences, but were expanded in fibres, as a fan, between the corpus striatum and the thalamus. The whole ependyma investing these parts was evidently thickened and granulous. There did not exist any trace of the middle commissure.

On the base of the brain it was seen that the chiasm of the optic nerves was formed of minute cords, very slender, and the X of the chiasm was much splayed transversely; the small bands were very slender. The olfactory nerves appeared normal, and they followed their continuation well to the convolutions of the hippocampus. The other cerebral nerves appeared normal. The tubercinereum and the mamillary corpuscles were very small. The cerebral peduncles were much elongated in the parts nearest to the hemispheres. The pons Varolii was very small, and so was the medulla oblongata, especially below the olivary bodies,

which were distinctly developed. The arachnoid and the pia mater, which involve the inferior portion of the medulla oblongata, were of an obscure grey color. The fourth ventricle was not at all distended.

In trying to pass a probe into the aqueduct of Sylvius, both from the fourth and from the third ventricle, we could not penetrate, though it is very easy to do so in normal brains. This aqueduct was equally impervious to the passage of water in either direction, while it is easily accomplished in any normal brain. This fact leads to the conclusion that the aqueduct was morbidly closed.

The cerebellum presented nothing abnormal on its surface.

The thickness of the grey substance of the cerebrum was in all parts normal; the dilatation was wholly at the expense of the white substance. The thickness of the upper skull varied from 3 mm. to 20; it was greatest in the occipital region, and least in the frontal and parietal; the bone had totally disappeared in the area of destruction before mentioned.

The sulci between the convolutions were deepest in the occipital (11 mm.); less so in the parietal (6 mm.); and still less in the frontal (5 mm.)

On cutting into the basal ganglia, we observed as follows: The intraventricular nucleus of the corpus striatum was reduced to a broad stratum, very thin, 1-3 mm.; in correspondence with the head of the corpus striatum, only, did the thickness of the grey substance approach the normal. Below this very thin grey stratum the internal capsule was seen, also reduced to a very thin white stratum; next the lenticular nucleus, somewhat thick, but much elongated; and then the external capsule also thin, the nucleus of the tænia much elongated, and finally the white substance be-

tween the nucleus of the tænia and the cortex of the island much attenuated.

On making incisions into the right optic thalamus, it was seen to be formed of a very resisting texture, and of a grey color; the left was less consistent, and of a pale rose color, from an apparent diminution of the internal grey substance.

On cutting the bigeminal eminences, it was observed that the nodules of induration were formed of a texture of lardaceous aspect. The pineal gland, being cut in the middle, appeared nearly circular, in diameter 11 mm., and formed of three concentric layers—one external, pale and less consistent; one intermediate, darker, and one deep, whitish, very consistent.

The medulla spinalis presented nothing abnormal, save a slight dilatation of the central canal corresponding to the lumbar enlargement. The central grey substance was well developed and formed, through the whole length of the medulla. The rest of the autopsy showed nothing abnormal, excepting hypostasis and oedema of the lungs.

The microscopic examination of the brain, by Dr. Seppilli, showed scarcity of the ganglion cells in the grey substance of the frontal convolutions; in these and in the central also, the nuclei and nucleoli were rather indistinct. The size of the cells was small, particularly in the frontal region. The nuclear and connective substance abounded everywhere.

(*Note by the Translator*: Prof. Tamburini now gives very minute details of the capacity and measurements of the cranium, which, though very creditable to the industry and exactitude of the learned gentleman, Dr. Amades, by whom they were ascertained, we do not regard as essentially important for a proper under-

standing of the pathological and psychological merits of the case; we therefore, desiring to devote our available space to the more interesting portion of Prof. Tamburini's valuable article, pass forward.)

"This large head is particularly notable for the development of the cranial part, which, enormous, spheroidal, and overhanging the face in such a manner, (although this part is not small,) threatens to suffocate it. The cerebral cranium, on external inspection, appears in every part globose, it is symmetrical, if we note only a length somewhat greater in the oblique diameter, between the right frontal projection and the left occipital. A fact worthy of notice is that the extraordinary extension of the brain-case was not furnished almost entirely, as usually happens even in slighter cases of hydrocephalus, by an amplification and outward curvature of the squamous parts, (frontal, temporal and occipital,) and by duplex sutures of these, with the parietal, and ossicula Wormiani, but rather by a very great extension which had taken hold of all the bones, and in a preponderating manner the frontal and parietal. This fact led us to believe that the hydrocephalus had commenced before the period assigned to it by the family. The capacity of c.c. 3,090, and the other measurements give the idea of great volume. The general form of the cranium differs widely from common, by its notable rotundity, which, by augmenting the transverse and vertical diameters, renders it ultra-brachycephalic, and excessive in height.

The frontal bone proceeds from a large base, but not much beyond the ordinary, it rises perpendicularly, and is symmetrical, with delicate superciliary arches and distinct projections, and it bends backwards with a gentle curving on its middle, while at the sides it expands much, giving place between the belly and wing to a very perceptible bulging, especially on the left. The parietals are much extended, convex and rounding, with full protuberances and a rather marked antero-posterior curvature. The temporal squamous portions but little exceed the normal; they are flat and slightly sloping from above downwards and inwards. The mastoid epiphyses are of great size, and are rough and without trace of the squamosa-mastoidean suture. The great wing of the sphenoid was much extended, especially in height.

The sutures were open, except in the vicinity of the sagittal, and were generally very simple; part of the coronal, however, was complex, and had long and slender teeth.

The muscular insertions were very little indicated, and from this appearance and the delicacy of the orbital border of the forehead, the cranium had the appearance of that of a young woman."

(NOTE.—We pass over a few paragraphs devoted to measurements and comparisons, which are not essential to an adequate comprehension of the case.)

The special interest of this case is presented in the fact that the life of F. having been prolonged to his twentieth year, we are enabled to depict with exactitude the alterations of development, form and direction, which the distension, produced by the hydrocephalic liquid, has induced in the various parts of the brain; and in the additional fact, that there remained the traces of other alterations, which, with the greatest probability, had a great part in the primordial pathogenic process, productive of the hydrocephalus. In fact, all the alterations met with in this brain may, in my opinion, be divided into three categories:

1st. Those which were the effect more or less direct of the distension produced by the liquid exudate.

2d. Those which very probably represented the post-humous results of the primitive alteration which produced the hydrocephalic process.

3d. Those which represented complications that more or less contributed to the principal morbid state.

1st. To the first category belong the enormous dilatation of the lateral ventricles; the thinning away of the cerebral mass, with disappearance of the oval centre, to such an extent as to form merely the thin walls of a great bladder; the considerable length and flattening of the convolutions, especially the central and the frontal, and the shallowness of the sulci; the

abnormal position and direction of the corpora striata, and their distance from the thalami; the attenuation and elongation of the grey and white strata which run from the corpora to the insula, etc. All these alterations found their direct cause in the enormous distension which the parts must have gradually undergone, as the liquid was being effused into the ventricle—a process ending in the usurpation of the whole hemisphere. This dilatation, however, was not equal in all the sections of the cavity; it was undoubtedly paramountly at the expense of the anterior section of the ventricle, and precisely of the anterior cornu. This is proved by the enormous distance (over 8 centim.) at which the anterior margin of the corpus striatum was found from the anterior wall of the ventricle, the considerable volume acquired, through distension, by the convolutions which constitute the frontal lobe, the greater thinning of the cerebral walls in the frontal region, and also the proportional greater development of the anterior section in comparison with the median and the posterior of the cranium. It is, therefore, necessary to admit, either that the pressure exerted by the effused liquid acted specially against the anterior part of the lateral ventricle; that is, from behind forwards, or that, acting with equal force on all parts of the ventricle, it found the anterior parts of the brain and the cranium more yielding, or that both these circumstances concurred to favor the greater distension in the anterior part. It is necessary to give an analogous explanation also of the singular splaying of the corpora striata, both as respects their relative position and direction to each other, and to the optic thalami. This anomaly of position, which we have before described, can not be explained unless by admitting that the corpora had been acted on, in a continuous and uniform

manner, by a force from behind forward, which, distending thus the base of the brain, forced these bodies to widen out from the thalami, and being carried forward thus causing the tails of the corpora to turn forward and outward, so that instead of the direction which they normally have, almost rectilinear (slightly oblique from within outward), they came into the almost transverse direction presented by them.

All this leads us to hold that the exuding liquid had acted in a postero-anterior direction in the distension of the cerebral walls; and thus obliges us to admit:

(a.) That if the exuding surface was limited, it was in the posterior part of the ventricles, rather than in the anterior;

(b.) That the anterior and posterior regions of the brain were found in different conditions of distensibility—greater for the former than for the latter.

Let us see whether in the facts of the second category we may find confirmation and explanation of these corollaries.

2d. To the second group should appertain all those alterations which, while they do not at all appear as effects of the distension produced by the liquid, on the other hand carry the traces of a slow irritative process, which may have been the cause, more or less direct, of the very abundant exudation. These are: the thickening and the granular appearance of the ependyma which invests the thalami, the eminences and the pineal gland; the sclerosis of these parts; the gelatinoid stratum of dark, yellowish red color, which covered several of these parts, and at one part deepened into a true focus of softening; the constriction of the third ventricle; the closure of the aqueduct of Sylvius. We have here wholly a region limited by the base of the brain, offering analogous alterations; the thickened

ependyma, granulous and covered by an exudate mixed with residua of old hemorrhage, which appeared more evident in the excavation between the right thalamus and the pineal gland, where there was all the appearance of an old hemorrhagic focus; the sclerosis, with atrophy of the right optic thalamus, and hypertrophy of the pineal gland; the compressed cavity between all these parts—this is the third ventricle, squeezed and constricted; finally, below these the canal of communication between the third and fourth ventricles—the aqueduct of Sylvius—closed.

All these lesions are evident signs of a slow, prolonged, irritative process, or better to say, of an inflammatory process with hemorrhagic exit, of which all these parts must have been the seat. We have, in fact, the characteristic traces of it in the exudates, and in the connective hyperplasia (sclerose) as well of the ependyma as of the interstitial texture, from which proceeded the coarctation of the related cavity.

What part could this localized ancient irritative process have had in the production of the hydrocephalus?

It is generally held that the pathogenic process of hydrocephalus usually consists in a slow exudative ependimitis; now all the parts described offer manifest characters of this. It is, therefore, rational to admit that this had been the point of departure of the liquid transudation. But could a surface so limited give origin to an exudate so abundant as to produce, as happened in this case, a dilatation of the two ventricles so notable? Admitting a slow and continuous production of exudate liquid, from even a limited surface, we may comprehend how, in a long time, so large a quantity of it might accumulate. And this accumulation so abundant, and its dilating effects on the parts, may be so much the better comprehended when we consider the

fact of the closure of the aqueduct of Sylvius, as a natural consequence of the superficial and interstitial slow irritative process, of the parts which constituted its limits, and very probably it was diffused into the ependyma lining the aqueduct. If the inflammatory process, at the same time that it produced the copious transudation within the lateral ventricles, also produced, by means of hyperplasia of the interstitial connective and adhesive exudates within the canal itself, first its narrowing and subsequently its closure, it is natural that all the liquid which was furnished by the superficial transudation, being unable to flow out through the aqueduct of Sylvius, from the third to the fourth ventricle, and from the latter into the medullary canal, must necessarily be accumulated in the lateral ventricles, and must continuously distend their walls, until they become two great bladders filled with liquid. And that the distension should be much more felt in the anterior of the ventricles than in the posterior, was a necessary consequence of the different resistance which, at least in a remote period of the irritative process, the parts behind the corpora striata must have presented, when already there had been produced in these that sclerosis of texture which we met with, and which certainly prevented them from yielding to further distension. Though, however, everything conduces to the belief that the chief point of outset of the hydrocephalic process and of the consecutive lesions was the region of the base of the brain, which we found most altered and paramountly sclerosed, the idea can not be absolutely discarded that, at least in the early period of the process, all the ependymal surface participated in it and contributed to the production of the liquid.

The fact of the atresia of the aqueduct of Sylvius explains to us, also, the non-dilatation of the fourth ventricle and the medullary canal, except in the lumbar region of the latter, where there was observed a slight dilatation, which might very well be regarded as the effect of a distension produced by a certain quantity of liquid, which in the inception of the hydrocephalic process, when the aqueduct of Sylvius was yet pervious, had passed through it, but was not followed by any more after the closure of the aqueduct.

All yet offered has regard to the nature, and, presumably, to the seat of the morbid process that produced the hydrocephalus. Now arises the question: in what epoch of life did this process commence? Is it to be held that it was congenital, or must we give credit to the assertion of the parents, that it commenced only at the age of two years?

When hydrocephalus commences at an epoch somewhat distant from birth, that is, when ossification of the cranial walls has already, in part at least, set in, then distension of the cranial walls does not take place in a uniform manner, but the parts yet thinnest, those not yet completely ossified, yield most to the pressure of the liquid, and become distended and form prominences (bumps?) which completely change the form of the head; the squamous bones—the frontal, parietal, temporal, occipital—are those which give these deforming saliences; thus also the sutures, at the points where they have not yet become completely ossified, undergo distension, which afterwards, in the period of complete ossification, gives place to sutures much more complicated, and interrupted by ossicula Wormiana. On the contrary, when the hydrocephalus is produced soon after birth, and no closed sutures oppose any obstacle to the distension of the cranial walls, their dilata-

tion is uniform, and the cranium appears equally spherical.

Now it is undoubted that the cranium of F. presented rather the characters of this second form of hydrocephalus—that is, the congenital, or that of the early period after birth, since the development of the cranium was uniform, and there was only one point of complicated suture—in the coronal.

But setting aside any importance to be attached to the statement of the parents, who assured us that the head of F. did not commence to enlarge till after his second year, and that also before this epoch his intelligence and his senses proceeded in normal development, there is a certain other consideration to be entertained, which might prove that the assertion of the parents merited more credence than might be supposed under a strict application of the above specified general principles. When expansion by liquid occurs before the ossification of the sutures—that is, when the bones of the vault are separated merely by membranous spaces (fontanelles)—then the latter, and not the former, present the less resistance, and hence they widen and permit a notable divarication of the bones. But when, after cessation of the hydrocephalic process, there happens that which is called the cure of the hydrocephalus, or that, while the quantity of liquid exuded remains unchanged, the cranial walls gradually undergo the process of ossification, it thence happens that in the dilated membranous spaces, new points of ossification are most frequently formed; thus are developed supplementary bones—the Wormiana—which unite among themselves, and with the bones of the cranium. Now, in our case there was no indication, in the points of ingranation of the cranial bones, of divarications undergone, nor were there any ossicula Wormiana whatever.

There is still another consideration. We have seen how great was the distension undergone by the cerebral mass, how great the attenuation of the walls, how marked the consequent alteration of form, position, direction, etc., of many parts of the brain. All this shows that very strong must therefore have been the pressure which, from within outwards, the liquid exerted on the ventricular walls, in order to carry to such a point the distension, as finally to separate the parts from one another, not on the convexity, but at the base of the brain—the great basilar ganglia. Now, if a pressure so strong had acted centrifugally on the cerebral mass, when, in the early period after birth, no suture, no complete ossification offered any obstacle to the distension of the cranial walls, it is very natural that these would have felt much more than they did the dilating action of the liquid, and would have undergone a much greater distension, and much more proportioned to the distension of the cerebral mass than was found by us.

Without then excluding absolutely, that even before the epoch indicated by the parents, a certain degree of ventricular hydropsy may have been initiated, we should hold that the hydrocephalus, true and proper and so copious, was produced only when the bones of the cranium presented a certain resistance, and the sutures already solidified did not permit further divarication of the bones. Nevertheless, the cranium had undergone a certain degree of distension, as its uniform enlargement proved. This may be explained by admitting that the bones, either because the epoch in which the hydrocephalus was produced was not very remote, or because there was present in them a pathological process, (of which we may find the analogue in curvatures of the spinal column,) and they may not

yet have been completely ossified, may have presented a limited but uniform yielding tendency, which permitted the uniform enlargement of the cranium. Perhaps, too, the bones themselves did not remain free from irritative process of which the brain was the seat; this is proved by the premature synostosis of the sagittal suture, the spongy aspect of the bones (a certain indication of slow osteitis) in the apex along the median line of the frontal, in the wings of the sphenoid, in the sella turcica, in the mastoid epiphyses, and finally the augmentation in the number and calibre of the vascular foramina in various points of the cranium, especially in the frontal and the temporo-sphenoidal fossæ. These diffused and localized hyperplastic processes of the bones of the cranium in cases of hydrocephalus, have been before observed with some frequency.

3d. We have, finally, some complicating facts—lesions—which, as well by their nature as by the epoch in which they were produced, could not have had part in giving origin to the hydrocephalus, or at the most only an aggravating influence over it. We would speak especially of the lesions found in the left fronto-parietal region of the cranium, as well as the brain, which could certainly represent only the residua of the fracture suffered at the age of eight years, when F. fell down stairs. We, in fact, found in the left of the cranium, at the point where the superior temporal line meets the coronary, a solution of continuity involving the whole thickness of the bone, with ragged and thinned margins, half a centimeter wide in the middle, and continuing forward with traces of healing of the bone. In correspondence with this region, there was seen on the brain an extensive area in which the cerebral substance was completely destroyed, in

correspondence with the posterior part of the second and third frontal convolutions, and a portion of the ascending frontal, and in consequence the walls of the great ventricular bladder were here formed of only a very thin covering, constituted solely by the arachnoid and the pia mater, which at this point presented on their surface patches of a dark yellow color, having the aspect of old hemorrhagic spots.

The genesis of this cerebral lesion is easy of explanation. Whether by the direct and immediate action of the fracture, or by a slow inflammatory process with softening, undergone in consequence of this, the corresponding cerebral surface, already *per se* much thinned by the dilatation produced by the liquid, finally yielded, the margins were separated, and hence there remained that large solution of continuity in the cerebral wall, which was closed merely by the thin meninges. This rupture, or destruction as we should say, may be the more easily conceived, in this region, as this was one of the parts upon which, as we have seen, the pressure of the liquid was most felt, acting from the interior outward and from behind forward; and it is very natural that on walls so stretched by the dilating force of the liquid, either the immediate traumatic action, or the slower one, of consecutive softening, might readily have produced their rupture, and their emptying and destruction.

We have thus tried to explain to ourselves all the multiplex lesions which we found in this interesting hydrocephalic brain. It now only remains to us, in order to complete the study of the case, to bring into relation some of the principal symptoms observed during life, with the anatomo-pathological lesions discovered in the autopsy.

And first of all we have seen that the intelligence, despite the great pressure felt by the internal cerebral mass, and especially by the frontal lobes, was still neither of the degree of idiotism, nor even of absolute imbecility. He was capable of certain notions, conversations and affections, which though they made up but a limited and almost infantile life, yet permitted him to take part in certain social enjoyments. This fact is explained (and there is at the same time in it an additional proof of the doctrine,) on the principle commonly to-day admitted, that the principal seat of psychical acts is the grey cortical substance of the hemispheres. In this case, in fact, while the white substance was everywhere thinned away, in some parts absolutely gone, and the dilatation of the ventricular cavities was effected at the cost of the white substance, the grey cortical substance was, on the contrary, of a considerable thickness, and the convolutions, although not deep, were still well defined and developed in breadth.

We have seen that the fracture in the left frontoparietal region was followed by convulsive movements of the limbs, especially on the right side, and chiefly by the superior; and by the convulsive movements which reappeared after the second fall with a wound in the same region, and lasted from his eleventh to his twelfth year, in which they disappeared, to give place to permanent contracture of the limbs. The explanation of these convulsive phenomena is easy, when we observe that the lesions produced by the fracture on the cerebral cortex, involved actually a part of the so-called motor zone, whose influence in the production of epilepsy is now placed beyond doubt.

The same lesion, which included the inferior part of the ascending frontal and a portion of the third frontal,

explains in like manner the fettering of speech, which constantly increased in his last years, since this includes exactly the center for speech—that from which emanates the motor impulse for the muscles serving verbal expression.

We ought also to note, without however attributing to the fact too much importance, that in this individual in whom there was complete paralysis and contracture of the lower limbs, paresis of the upper, less development of the left limbs, especially of the upper, we had the fact that while the corpora striata, although displaced and elongated, yet presented a conformation and texture apparently normal; on the contrary, the thalami optici were both diminished, and the right notably sclerosed. This observation might lead us to the same conclusion as another case, not long ago illustrated, (*Contributo alle Localizzazioni Cerebrali*, 1879,) in which there corresponded to a conspicuous atrophy and paralysis of the left upper limb, in continuation of an extensive lesion of the motor cortical zone on the right, no lesion of the corpus striatum, but a strong atrophy and sclerosis of the right optic thalamus; that is to say, the conclusion that the thalami optici are not estranged from motor function, but that they are in some relation with the motility of the limbs of the opposite side, especially of the upper ones.

Finally it deserves to be noted that, in spite of so great a permanent lesion (compression) of the cerebral mass, life was protracted up to the twentieth year. It is true that it is well known to what a degree the brain is capable of bearing lesions of slow course; it is also true that the cases of hydrocephalus of a medium degree, which permit continuance of life for a certain number of years, are not rare; cases are recorded of moderate hydrocephalus that became stationary, and

reached to the age of 50 years. Topinard speaks of an individual who, with a circumference of 87 centimetres, (say 36 1.2 in.,) reached the age of 23 years. This, however, does not set aside the fact that our case was one of great rarity, when it is remembered that already, at the age of five years, the volume of the head of F. was very nearly the same as we found it. In this case we can not but ascribe an influence, in the maintenance of life, to the fact that, by the closure of the aqueduct of Sylvius, the pressure of the liquid which was exerted on the hemispheric masses, those parts were withdrawn from dangerous action, which, as the fourth ventricle and the other regions of the medulla oblongata, are most essential to the accomplishment of the vital functions.

A CASE OF THROMBOSIS OF THE LONGITUDINAL SINUS.

BY DR. H. SCHUELE,

Assistant Superintendent of the Illenau Asylum for the Insane, Germany.

[Translated from the *Deutsches Archiv. f. klin. Medicin.* XXVI Bd.]

The interest of the following case centers in its clear clinical symptomatology, and in the fact that the disease may be closely followed throughout its entire course. The autopsy comprises, in addition to the principal morbid conditions found, other data, which, with special reference to the question of localization of motor centers in the cortex cerebri, are not without significance.

C. W., the wife of a railroad switchman, æt. 41, is said to have been healthy up to the time of the present illness. She had never borne children or been pregnant. Although the patient was intellectually well-endowed, there was marked hereditary predisposition. Her paternal uncle suffered from profound melancholia and committed suicide, her brother was for many years a patient at Illenau, and was finally transferred to Pforzheim as a case of chronic mania. The patient's present illness began about eight days before her admission to our asylum. The only cause assigned by her husband was the news that they were to be transferred from the station which they had hitherto occupied (his wife's birthplace) to Mannheim. These wholly unexpected tidings came like a thunderbolt to the woman. She had never been away from home. She lived in St —, amidst a circle of dear friends, and she was especially fearful that her weakly husband would not thrive under the new conditions, and that they were threatened with pecuniary losses. From that hour on all rest and sleep

were out of the question. The woman wept and wailed, and tried every means in her power to have the decree rescinded. Her sickly, easy-going, good-natured husband could afford her no solace. Her unrest rapidly increased, and there supervened periods of cerebral congestion and fearfulness during which the patient would conceal and protect herself, crying aloud "they are coming and want to move into our house, but we won't go." In her great anxiety she ran to the station officials for help whereby they might retain possession of their house. Delusions soon appeared. The patient asserted that the Pope was dead; that he had cut his throat. She became so restless and frenzied that it required several persons to apply the necessary restraint. Allowed the free use of her arms, she began at once to destroy. The fear that she would be compelled to leave her house always entered into her delirium and maniacal demonstrations. The motor phenomena soon became more violent, and finally impulsive without definite plan, (maniacal). The patient rolled about on the floor for hours at a time, kicked and cuffed indiscriminately, gnashed her teeth, made all sorts of grimaces and convulsively contorted her arms (epilepsy had never been observed previously). The patient was handed over to our asylum in this condition on November the 7th, 1879.

On admission, the patient evinces great outward restlessness and a blind, violent resistance to every approach. She mistakes the identity of all about her, constantly attempts to escape, makes no answers to questions, and utters only a few quite fragmentary unintelligible sentences. The features wear an expression of extreme anxiety. The pulse is full, 120; the face flushed; the head warm. General nutrition is good, and the body well supplied with fat. Nothing remarkable in shape

of head. No disturbance of innervation. More exact physical examination is impracticable. On inspecting the body, the skin of both legs, particularly the left, and more especially that over the crests of the ilia, presents numerous fresh suggilations. The patient is put to bed and ice bags are ordered.

November 8.—Patient did not remain in bed in the night, notwithstanding a nocturnal enema of a gramme of chloral with 0.015 of morphia; she stood constantly at the door, rattling and trying to get out. In the morning, after the cautious inhalation of a few drops of chloroform, she became quiet for a few hours. Still utters disconnected sentences, from which is gathered that she does not know where she is and wants to go home at any price. Expression not so anxious as yesterday, head not so warm, pulse remains frequent; takes milk.

November 9.—Same condition. Constantly stands at the door and tries to get out, saying she will not remain here any longer; that she wants to go home; will not keep her clothes on; withdraws her hand when the attempt is made to feel her pulse, and cries continually, "No, no;" pulse 120. She gives to questions broken, unintelligible, dreamy answers. On account of her restlessness and constant attempts to get away, and fearing the danger of exposure to cold and exhaustion, the patient is restrained in bed by means of a strap.

November 10.—Much quieter to-day and at times more lucid. Complains that she can not go home, and that she has no more clothes; says that her money was taken from her at home; that she was choked, that she has since been unable to swallow or eat a morsel of bread (the appearance of dream-like phenomena); that with the money great battles have been fought. In answer to question says: "Yes, you are the doctor,

and have also been concerned in the money question." Expression of face still clouded; pulse 120; sticky skin; temperature not elevated; eats better.

November 11.—Becoming apathetic; lies flat on the bed, with eyes half closed; radial pulse 108 and small, with full carotid pulse; hands cool. Says little, and speaks a jumble of correct answers and dreamy nonsense. For instance, she asks for her clothes, says the drops of blood which have rolled away from her ought to be picked up. She suffers pain everywhere, can not stand up straight, is so very ill and can do nothing to help herself. Retention of urine. On introduction of the catheter, the labia and introitus vaginæ are found considerably swollen. On both nates, especially the left, there are, in a circumference of from one to two inches, erythematous spots with the characteristic reddish brown vesicles of acute decubitus; the latter are dressed. Sherry, strong beef tea with egg.

November 12.—The same apathetic state, while the sensorium is much clearer. The patient answers all questions correctly; begs to go home, and when questioned in regard to her bruises, assures us that she was not beaten at home. Still lies flat on the bed and makes but few spontaneous movements; at the most to feel about herself with her right hand, or arrange the bedclothes. *She keeps the left arm flexed*; passive extension is made without great resistance, but the arm immediately returns to the contracted position; when raised from the bedclothes it falls at once by its own weight. The entire left leg is œdematous, its circumference being five cm. greater than on the right side. Temperature the same as elsewhere. On the tibia and dorsum of the foot the superficial veins are prominent; the leg remains motionless, and when raised falls again

as if paralyzed. Deeper palpation of this left foot elicits groaning; in other respects the sensibility of the skin, on pricking, seems to be diminished, since the patient scarcely utters any expression of pain, at all events not for some time (and this is evidently weaker on the right side). Reflex action is defective and tardy; no disturbance of innervation in the face; pupils equal and respond promptly, although perhaps a trifle more tardily than normal; tongue can not be projected beyond the teeth, and is dry; speech correct in every respect; deglutition perfect; retention of urine; abdomen distended with wind; no stool; pulse 112-120. Features set, slight oedema of entire face; towards evening redness, and marked fever; temperature 38.4 C.; carotids pulsate very forcibly, the left more so than the right. With the onset of fever, consciousness becomes more dream-like; the patient mistakes the identity of persons, and forms from former reminiscences short incoherent sentences, but can nevertheless be brought to answer correctly by calling repeatedly and more loudly; articulation faultless. The left arm still more contracted towards evening; the right arm free and occupied in a variety of picking movements; left leg remains motionless.

November 13.—Free from fever this morning, pulse 80, condition same as yesterday; left arm flexed, left leg swollen, with sensibility of skin less than on the right side; pain, on firm grasping, continues; retention of urine; abdomen distended as yesterday; hard stool after enema, without marked decrease of tympanitis; speech somewhat thicker, but otherwise correct as regards articulation. All answers are clear and prompt; patient is fully conscious; complains of being disturbed by noise at night; desires rest and to be sent home; does not speak *sud sponte*. An interesting feature to-

day is the psycho-motor paralysis of the left arm. When asked to grasp an object presented to her, she allows the left arm to rest, and makes the necessary motion with the right arm only. If the right arm is held, she is unable to grasp properly with the left. She can not reach the tip of her nose with her left hand, in a free arc of a circle; she succeeds, however, by bringing the hand slowly to the chest, then to the neck, and finally up to the face. The perception of motion for free circular movement to the nose must have become lost. She can attain this end only successively, and by guiding, *i. e.*, sliding the hand along the chest. The left arm, when passively raised to the head, falls slowly down; patient says she can't understand the meaning of it; that she can no longer do anything with that arm, that it seems "bewitched;" great listlessness and defective spontaneity contrast with the otherwise unimpaired consciousness; only asks to drink. Towards evening, 5 o'clock, fresh access of fever, which continues till late in the night, temperature rising to 38.6 C.; pulse 120; head much congested and ice-bags necessary; pupils distinctly smaller; heart-beat very strong; systolic murmur lengthened and accompanied by a friction sound. On the right wrist there is an œdematous spot, with slight fluctuation, and the skin over which is not reddened; palpation painful. To-day the right leg is also somewhat œdematous; sensitive when deep pressure is made, yet there is still a difference in circumference, when compared with the left, leg, which is still movable.

November 14.—Restless during the night; rapped on the wall and called names (hallucinations?), when at rest she lies in a state of languor; the upper lids droop, the tongue is dry, speech is slow, but correct as to form and purport; pulse 128, feeble; temperature

38.5 C.; deglutition good; sensorium, as yesterday, clear, but still there is a lack of spontaneity and interest, with the exception of the repeatedly expressed wish to return home; abdomen less tympanitic; left arm still slightly flexed at elbow; upper arm paralyzed, although on urging, the patient is still able to slightly move her fingers; swelling of left leg slightly diminished; paralysis as yesterday; retention of urine continues; patient somewhat more restless towards afternoon; says she hears stone-breakers outside, who cry "Sessel;" once said she saw ghosts; she refuses gruel, saying it distresses her; in course of afternoon there is again fever (temperature 38.6 C.; pulse 128); face becoming much reddened, particularly the conjunctivæ, and slightly œdematous. The left pupil is markedly contracted; a slight paresis of the left facial is also noticeable this afternoon; patient herself complains of great heat in head, says she is afraid, and wishes she could only be at home. She answers all simple questions correctly, articulation is correct, though thicker and slower. Flexion of the left arm no longer noticeable; it can not be spontaneously raised, though when passively lifted, does not fall down entirely relaxed; sensibility as yesterday; friction sound distinctly heard at apex.

November 15.—Is decidedly worse; pulse 120, temperature 38.5; has taken milk; still clamors to go home; says they are only fooling with her here; complained that her whole body was so painful that she was lost; asked after her sister who, she said, was here (hallucinations?); cried during examination; bed-sore has become much larger, notwithstanding dressing and air-cushion; black crusts have appeared on either side; left arm relaxed, and again slightly contracted at elbows; fingers slightly bent; the alæ nasi have fallen in, and cause whistling respiration; cheeks

flushed; eyes closed, although patient opens them when bidden. To-day, swallows with some effort, complains that she is unable to get anything more down; *undulation of the right jugular vein is marked*; the carotids are full. During the night, several attacks of twitching in face were noticed, with foaming at mouth, and afterwards rattling and cyanosis. The last attack consisted in jerking, and marked trembling movements of the left, paralyzed arm. In the course of the afternoon, several convulsive seizures of a polynorphous character supervened. These were, first, tonic convulsions of face, head and the muscles of the eye (distortion), together with movements of extension in the left arm. Foam at mouth. Patient appeared to be unconscious, but was soon herself again, and partook of proffered beverages. Later came jerking movements of the head and trunk, and more especially on the left side, while consciousness was maintained, and the patient, during this convulsive action, answered all questions correctly. These latter seizures lasted about fifteen minutes; the former were of but short duration; patient asserted in evening that she always knew exactly when they were coming on: her head became, she said, extremely hot, and it seemed as if a big man came towards her. Is fearful just before the onset of seizures, because they cause her so much pain. Patient lies continually in a perfectly indifferent condition, as if half asleep; she takes notice, however, of those who enter, and returns their greeting, which latter, must to-day be expressed in a louder tone. Her speech is manifestly more labored and more easily confused. Thus the patient asks to go home in the evening, because she is "afraid of the Pope." Cardiac action increased, pulse 152. The systolic murmur continues; temperature 38.6. Respiration 42, and

presenting, transiently, a reverse type (*respiratio cephalica*), at other times it is quite silent, and again extremely loud (approximation to Cheyne-Stokes' phenomena). Towards evening, the left arm is quite paralyzed, and the contraction at elbow has disappeared; ice-bag to heart and head.

November 16.—Convulsive seizures in the night at 12, later at 3, and at 6 in the morning. These were of light character, confined to isolated twitchings now of the right, now of the left arm, or to slight shaking of the trunk, patient remaining conscious. Patient felt their approach each time, predicted their onset, and complained, after their termination, of the anguish they caused her. She always thought she was losing her breath. Tells the physician, whom she names correctly, that she has undergone a great deal. Left arm remains paralyzed, fingers flexed; right arm relaxed, but capable of motion. Face red, shiny, slightly œdematous, eyes closed. Temperature 39, pulse 144, respirations 44, and transiently of reverse type. Heart impulse strong, although less murmur. A thorough examination of the lungs is impossible owing to patient's feeble condition. She is always fully conscious, answers all questions correctly, and gives assent to a visit from her mother. She complains of a sense of great dread; can scarcely breathe. Thinks everything is crowding upon her, and feels as if a stone lay in the cavity of her heart. Otherwise no pain. At noon more convulsive seizures. At first jerking movements of the trunk, then of the head, then twitching of the face, then clonic convulsions of the extremities, especially the left arm. In answer to questions, patient said, during the convulsions, that she did not feel well. A little later she said she felt as if a great weight lay on her heart; she often thought she was shut up in beds.

When she breathed she felt all drawn together; often experienced shocks so that she was tossed about. All this she says perfectly. In afternoon temp. sinks to 38.1. Face flushed. Swallows better again. Pupils continue contracted, not markedly uneven, react slowly, eyelids remain drooped, although she is still able to raise them slightly. Patient groans occasionally. Right half of chest rises a little less than left, and in place of vesicular murmur, ill-defined, harsh respiration is heard, and on that side the percussion note is slightly duller. On right middle finger a subepidermal pus-vesicle. At 4 and 6 o'clock further convulsive seizures, but these are now general, and, for the first time, of a severe epileptiform character. The patient is unconscious during their progress and they leave behind a profound stupor. The order in which the tonic and clonic convulsions occur, is: left arm, left half of face; right arm, right side of face and the trunk. They lasted from one to two minutes; temperature 39.4; pulse 144; deglutition much more difficult afterwards.

November 17.—Passed a quiet night, with the exception of occasional incoherent talking. Towards morning, at six o'clock, short convulsive seizure. In morning patient lies in a somnolent condition; eyes are almost completely closed, face flushed and perspiring; temperature 40.3; pulse 160; respirations 66; breathes laboredly; still gives appropriate answers to single questions; says herself, if only the fits didn't come any more; complains of cramps in her feet; both arms are relaxed, she picks the bedclothes with her right arm; urine passed involuntarily; deglutition more difficult; infusion of digitalis; ice-bag as yesterday.

November 18.—Patient breathed more freely in the first half of the night. At 1.30 an attack of severe oppression; at 5.30 in the morning a convulsion, with

twitchings of face and arms, and very labored respiration. The patient predicts the attack; she feels it coming on, and requests the attendant to give her a drink before, and "afterwards again." Complains of lying wet in the morning; tells physician, on being asked, that she did not have a good night, and that he should be thankful that he was not in her place. Eyes remain closed continually. To-day the difference in innervation of the two sides of the face (in favor of right side) is more strongly expressed than in the last few days; face much flushed, pulse 142 and small; respiration harsh on both sides, 60; abdomen less bloated; urine again passed involuntarily. On inquiry, patient says that she has pain in the abdomen; other questions remain unanswered; digitalis discontinued. At 11.30 in the morning, another attack of clonic twitching, which continued till 1.30, and ended in marked gaping. At 2 o'clock, several short seizures, with interrupted, jerking respiration; the latter now becomes more rapid, and is attended with forced coöperation of the muscles of the nose, mouth and neck. Patient occasionally groans, coma increases; she can not be made to answer questions. Towards evening, commencing tracheal rattling; at 10, still another attack of convulsions; at 11, dead.

AUTOPSY, ELEVEN HOURS AFTER DEATH.

Body of average size, well nourished; on the thigh and leg, more especially of the left side, there are still a few bluish yellow suggilations of the skin. On the right buttock there is a portion of the corium, of the size of two thalers, denuded of epidermis, with a small gangrenous crust in the center. At the corresponding situation on the left side there is a black crust, about

two inches in size, involving the entire thickness of the skin (*decubitus acutus*). The left lower extremity is larger than the right and *oedematous*; the superficial veins on the dorsum of the foot are very prominent, and the right leg is slightly larger than normal, but much smaller than the left.

Skull presents nothing special; roomy and symmetrical. Sutures only preserved in parts, *diplœ* pretty vascular. Calvaria separated from dura mater without difficulty.

The exposed dura mater is much congested, and firm blood clots (swollen veins) and spots of extravasation may be seen through it, *in situ*, near the longitudinal sinus. On incision but few drops of bloody serum escape. The inner surface of the dura mater shows, on the right side, light yellow, fibrinous deposits, and, on the left, a few small blood coagula—both of apparently recent date as they can be easily scraped off.

The arachnoid and pia mater are, on both sides and near the sinus, injected with blood, this being more marked on the right than on the left side. The veins, so far as they correspond to the middle lobe, central convolutions and posterior frontal lobe, are swollen to hard, knotty cords, seeming from their hardness to indicate thrombosis. The inner membranes are much congested, *oedematous*, and over the frontal lobes here and there slightly thickened, and in circumscribed spots present a whitish or white-yellowish turbidity. They are everywhere easily separable from the cortex without loss of substance. *On cutting open the superior longitudinal sinus, it is found to be completely filled by a thrombus.* This thrombus, to the extent of one inch, and corresponding to the upper end of the central convolutions, is transformed into a yellowish hard, fibrinous plug, which adheres firmly to the wall'

although unattached and separable by means of the scalpel. In front and behind they continue into red consistent coagula, which fill the entire lumen of the vessel, and extend downwards into the torcular. These are only loosely attached to the vein-walls, the latter being intact throughout. The veins which run in from the posterior frontal region and the post-central fissure are, on the right side, completely filled, up to their finest ramifications, with hard, blackish, fibrinous plugs. The same is found on the left side, though the plugs are softer. The torcular contains a loose coagulum, likewise the horizontal sinuses. On the other hand, the sinuses at the base of the brain are everywhere free. After removal of the lower membranes on both sides, several of the convolutions are seen to be of larger volume, softer, much congested, and sprinkled with a great number of fine red punctations (capillary apoplexies). On the left side this is only marked in the cortex of the upper edge near the longitudinal sinus, further down are found scattered, a few small, isolated spots of red softening. On the other side, however, larger circumscribed areas have undergone this change. These are, beginning from behind :

1. The upper end of the posterior central convolution and the beginning of the upper parietal convolution. This focus measures in the sagittal diameter one inch seven lines; in the transverse diameter, one inch. Adjoining this is :

2. A softened, narrow zone at the borders of both these convolutions, extending as far as the interparietal fissure. It follows the sulcus postcentralis, or more precisely, the course of the veins at this situation, which are in a condition of marked thrombosis.

3. A very narrow strip of isolated, red spots extends forwards over the front central convolution, one inch

laterally from the margin of the hemisphere to the beginning of the first frontal convolution, which is also dotted in its posterior origin, with a large number of red isolated foci. In front of, and immediately contiguous to this, is:

4. A second, confluent, red focus of softening, resembling the first focus, and of about the same size (1 inch transversely and $1\frac{1}{2}$ inches vertically). This completely embraces the lateral limits of the first frontal convolutions. Compared with the posterior large focus, the tissue of this anterior one has remained somewhat more consistent, and appears of more recent date.

Successive transverse sections of both these confluent foci show the entire thickness of the cortex much congested and of loose texture.

There is no longer any recognizable design. The tissue has entirely disappeared in the posterior focus. In both parts the softening is continued downwards to the bordering corona radiata, but in so doing assumes more and more the form of scattered islands of softening. The marginal zone surrounding it is of a dull yellow. This appearance is retained in the case of the anterior focus for a depth of about half an inch, but in the latter the last traces may be followed to the roof of the ventricle.

In the left hemisphere, corresponding to the very much slighter affection of the cortex, is a much less injury of the corona radiata, and it is limited only to isolated and very small foci of softening.

In the remaining portions of the brain, beyond general succulence, richness in blood, and here and there œdema, there is nothing remarkable. The ventricles are very narrow, and contain scarcely a trace of serum. No granulation of the ependyma. Vessels of the base free. The arteries are more especially intact, the vein of the right Sylvian fissure contains a loose coagulum.

Cerebellum and medulla free, slightly œdematous.

The spinal cord presents in different parts marked softening of the grey horn so that on section the parenchyma collapses. Otherwise nothing special.

Heart of average size, but covered with a great deal of fat. Heart muscle soft and friable, in a state of decided degeneration; a loose clot partly decolorized is found in the right auricle. Mitral valves shriveled from old thickening; aorta free, without atheroma. Lungs on both sides, anteriorly, at the apices, emphysematous; in the posterior and lower parts, hypostatic; with infiltrations of lobular pneumonia (probably embolic).

Liver moderately enlarged and showing marked fatty degeneration. Gall-bladder distended; blood supply below normal.

Spleen small and friable.

Kidneys pretty much congested, friable. Pelvis of kidney mottled with blood.

Virgin uterus with glairy mucus, and a small polypus in the cervix.

In both crural veins, beginning from Poupart's ligament, are occluding plugs, which gradually become looser as they extend to the ham. The plug in the right crural is firmer, partly colorless, and adheres to the wall of the vein (intact) more closely than on the left side. The latter is older than the former, but both are evidently more recent than the thrombus in the vessels of the brain.

Microscopic examination of the cortex shows that we have not to deal with an acute encephalitis, but a softening with suffusion, and commencing necro-biosis. The characteristic structure of the tissue is maintained at the red injected points, and only partly broken down (by œdema) in the thoroughly softened parts. The

ganglia, on the other hand, are in a state of degeneration, partly glassy involution, and partly from desquamative metamorphosis. Lymphatic coagula with imbedded granular cells are found in single portions of the parenchyma, especially surrounding the vessels. A large number of these latter, even the smaller, are thrombosed and filled with fibrin cylinders. The adventitious sheath is surcharged with red and white blood corpuscles. The capillaries are, for the most part, empty. The yellow, zonular layer in the corona radiata shows an infiltration with pus corpuscles, but without softening of the medullary layer. According to this, the thrombosis is essentially primary, and, judging from the configuration of the blood, that of the sinus the oldest in point of time. There is nothing abnormal in the grey substance of the cord.

REMARKS.

The clinical picture of the foregoing case differs in no essential particular from those which have been hitherto described. Noteworthy is the clearness of the symptom complexus, together with the clear survey of the progress of the disease. A woman in perfect health till the end of October, has, as the result of a profound emotion, an attack of active melancholia, accompanied with sleeplessness. The kernel of the melancholic affection centers in the cause of this emotion (removal of her husband).

The unrest increases, the depression causes increased motor phenomena, with an increased, painful concentration of thought, bordering on mania (melancholia agitans). In rapid succession flights of thought are lost in delirium. The constantly increasing motor phenomena become more and more deprived of their psychical character (tossing about on the floor, convul-

sive biting and striking). Consciousness remains dream-like in the quiet period. The whole picture throws off the character of a functional, cortical disturbance, and assumes the clinical features of an organic, palpable, cerebral irritation. In this condition the patient comes to the asylum. For the first few days the delirium continues with planless, impulsive motor disturbance. Then follows outward rest with increasing clearness of consciousness, during the access, however, of motor focus-symptoms in the extremities (contraction of the arm with paralysis of the leg of the same side) and serious trophic disturbances (*decubitus acutus*). At the same time symptoms of venous thrombosis appear in the paralyzed leg. The contracted arm presents alternating phases of diminished and recurring spasmodic flexure, and ends in its course, through a stage of psycho-motor paralysis in permanent motor paralysis. The paralysis of the leg remains unchanged. Then come symptoms of thrombosis in the other leg. On the left side—that originally affected—there is paralysis, although very slight, of the facial nerve.

Notwithstanding this relative clearness, the processes of consciousness lacked spontaneity: with the exception of a few simple questions and the intimation of immediate wants (drink, bedding), the patient remained quite listless. Death occurred gradually through the lungs. As anatomico-pathological basis of the above described symptoms, there was found post mortem an idiopathic thrombosis of the longitudinal sinus and of the anterior and middle veins of the pia mater, with consecutive red softening of the adjacent cortex. The softening represented a pure, acute necro-biosis. In the lower and gradually less affected portions of the corona radiata, it had reached the first stages of a reactive in-

flammation. The destroyed pneumonic foci in the lungs, as well as the thrombi of the crural veins, were undoubtedly due to a dislodged clot. The anatomical situation of the principal focus of softening, as regards its relation to the motor disturbances, deserves special attention; since it may be positively inferred from the continuance of the paralysis that this was not only of general cerebral, but of a decided cortical nature—this paralysis manifesting, in the left arm, so pronounced a psycho-motor phase before permanent paralysis set in. Did this transition stage correspond to a lesser degree of softening in the cortical field, before this latter became entirely destroyed? Does it thus represent the physiological transition to the marked motor functional paralysis after complete destruction? This unilateral paralysis of the extremities points distinctly, as regards the question of cortical localization, to the two larger foci found in the convolutions. This topographical situation corresponds, with remarkable precision, with the results of Ferrier. The focus in the upper gyrus postcentralis, with partial continuation in the cortex of the first parietal gyrus, corresponds so exactly with Ferrier's center for simple movements of the arm and foot of the opposite side that a causal relation can not well be questioned. In like manner the anterior larger focus in the first convolution corresponds pretty exactly with Ferrier's motor center for complex movements of the arm, only the pathological condition observed by us extends a little further forwards than the area of the experimental physiologist. The gyrus paracentralis (Charcot) is affected to a much less extent (only by capillary apoplexies here and there). The gyrus præcentralis is quite free, and here Hitzig places special motor areas. Moreover the slight, narrow softening at the uppermost

surface of the left hemisphere had run its course without any perceptible effect on the motility. This case corresponds essentially with Neelsen's recent case. (*Archiv. f. klin. Med., B. XXIV.*)

The persistence of consciousness to the last hours of the patient's life, notwithstanding the extensive destruction of the cortex and corona radiata, may have depended upon the limitation of the cerebral affection to the immediate neighborhood of the veins which were principally involved, whereby the frontal lobes—with the exception of the one larger focus at the posterior origin of the left frontal convolution, remained intact. In the beginning, before the consequences of the venous obstruction were confined to these circumscribed areas, the circulatory disturbance must, in view of the facilities of communication in the pia mater, doubtless have been more general and diffuse, and it is certain that the initial state of depression is referable to this stage of diffuse and extensive disturbance of the vessels (venous hyperæmia).

But whence this extreme circulatory disturbance in the brain at the outset? This question is of interest as regards the etiology of the case as above described. It can only be referred to one undoubted origin, viz., a violent, emotional shock in a person with marked hereditary predisposition, and in the climacteric. As the result, mental disturbance at once declares itself, and retains, throughout the entire delirium and period of anxiety, only the one character—that of the injuring affection, till increasing cerebral pressure removes the irritation, and with it the mental and motor unrest, and again brings into play the function of consciousness, notwithstanding this latter had been materially impaired.

May we not ascribe the condition, in this case, to the vasoparetic effect of such a profound mental shock, which produced the first cerebral blood stasis, and thus formed the starting-point of a local thrombosis in an already invalidated brain?

ABSTRACTS FROM HOME AND FOREIGN JOURNALS.

THE SIGNIFICANCE OF FACIAL HAIRY GROWTHS AMONG INSANE WOMEN.—Dr. Allan McLane Hamilton read an interesting paper on this subject at the last meeting of the New York State Medical Society. He cited a number of illustrative cases, a consideration of which, he thinks, will show that :

First. Abnormal growth of hair, especially upon the face, is frequently closely connected with disturbed function of the pelvic organs of women.

Second. That in the insanity of women, especially when it lapses into dementia, and cutaneous nutritive changes exist, such growths of hair are by no means of uncommon appearance.

Third. That their unilateral character, so far as preponderance in growth is concerned, and their association with unilateral cutaneous lesions, such as bronzing and nail-changes, indicate their nervous origin.

Fourth. Their appearance chiefly upon the face in insane patients, and relation to trophic disorders incident to facial neuralgia, points to the fifth nerve as that concerned in the pathological process.

Fifth. The development of hair, with the deposit and pigment of skin lesions, and occasional goitrous swellings, suggests the inference that the neuro-pathological process which leads to the growth of hair in the chronic insane, is akin to that which gives rise to Addison's disease.

He regards any considerable growth of hair upon the face of female lunatics as indicating an unfavorable form of insanity, and especially in the case of women who have not reached middle life.—*The Medical Record*, March 12, 1881.

INSANITY AND UTERINE DISEASE.—In a recent letter to the *Medical Record*, Dr. Leonard F. Pitkin, of New York, endeavored to show that diseases of the womb constitute one of the principal causes of insanity in females. He says: "The almost invariable presence of some one or more of the various uterine diseases, either functional or organic, in those cases of insanity occurring among females, and the facts brought forth by a thorough and searching inquiry into the history of a large number of cases, have convinced me of the important and serious effect often produced by a diseased condition of the uterus upon the nervous system. * * * * Among nearly one hundred and fifty cases of insanity which I examined during my service in the asylum, in nearly every case I found some uterine disorder, which almost invariably, inquiry would reveal, had existed prior to the advent of mental trouble, in many cases for several years."

Dr. L. Putzel expresses his surprise, in a letter to the same journal, at the wide prevalence of such views among the profession. "In my capacity as pathologist to the insane asylum at which Dr. Pitkin was assistant physician, I have had the opportunity of making nearly one hundred post mortems upon insane females. Although I have no statistics to offer upon the subject, I am nevertheless convinced, from a comparison of the results of the autopsies above mentioned with those derived from considerable experience in autopsies upon sane females, that there is, perhaps, less uterine disease present in the insane than in the sane, and in relatively few cases among the former have any lesions of the genital organs been found worthy of note. Comparatively few women with unbalanced minds will refuse the physician a history of uterine disease if closely questioned concerning the genitalia, and long-continued investigation with regard to the influence of sexual derangements upon the production of nervous diseases in general, have convinced me that in very many cases the mere co-existence of uterine and nervous disease is regarded as sufficient proof of their interdependence. It is unnecessary to dilate upon the fact that the maintenance of such an erroneous view with regard to etiology may be associated with pernicious results with reference to treatment."—*Ibid.*, March 26 and April 9, 1881.

DR. CLOUSTON ON PUBERTY AND ADOLESCENCE, MEDICO-PSYCHOLOGICALLY CONSIDERED.—"I would say a word about prophyllaxis in children with a strong neurotic inheritance. My

experience is, that such children who have the most neurotic temperaments and diatheses, and who show the greatest tendencies to instability of brain, are, as a rule, flesh-eaters, having a craving for animal food too often and in too great quantities. I have found, also, a large portion of the adolescent insane had been flesh-eaters, consuming and having a craving for much animal food. My experience, too, is that it is in such boys that the habit of masturbation is most apt to be acquired, and, when acquired, seems to produce such a fascination and a craving that it ruins the bodily and mental powers. I have seen a change of diet to milk, fish and farinaceous food produce a marked improvement in regard to the nervous irritability of such children. And in such children, I must thoroughly agree with Dr. Keith, who, in Edinburgh, for many years has preached an anti-flesh crusade in the bringing of all children up to eight or ten years of age. I believe that by a proper diet and regimen, more than in any other way, we can fight against and counteract inherited neurotic tendencies in children, and tide them safely over the periods of puberty and adolescence. * * * * *

It always seemed to me that there were two things that constantly worked the other way, and that I had to contend against in their treatment. These were the general brain excitability and the morbid strength, and often perversion, of the generative *nisus*. The one tended to mania, sleeplessness, purposeless motor action, thinness and exhaustion; the other to erotic trains of thought, sexual excitement and masturbation. I found that inaction, reading, indoor life and amusements increased the one, while novel-reading, solitariness, and long hours in bed aggravated the other; and animal food and alcoholic stimulants gave increased strength to both morbid tendencies. I therefore, encourage active muscular exercise in every way. But I place my chief reliance on diet, * * * in reality, milk is the sheet-anchor of treatment. I never give such cases alcoholic stimulants. I give to all such patients who can take and assimilate it easily, an emulsion of cod-liver-oil, hypophosphite of lime and pepsine, made and flavoured in such a way that it resembles cream. I find very few, indeed, who can't take this. Beyond this, an occasional bitter tonic is about all the medicine I give."—*Edinburgh Medical Journal*, and *Practitioner*, January, 1881.

OVARIAN COMPRESSION IN HYSTERO-EPILEPSY.—“In many of Charcot's cases of grave hysteria, ovarian pain and tenderness

have been marked features; and the Professor lays great stress upon the occurrence of such symptoms, and upon the fact that firm ovarian pressure will, in hystero-epilepsy, arrest the paroxysms. Our experience does not coincide with this. In the case of hystero-epilepsy spoken of above, ovarian pressure did not arrest the fits; and this is our common experience. In American women, the ovaries do not seem to be often involved in hysteria, nor are we able to feel them or impress them by the method described by Charcot. Often, too, I have seen very marked ovralgia and ovarian tenderness, without hysterical symptoms.”—Prof. H. C. Wood, in *Philadelphia Medical Times*, February 26, 1881.

A LONG-LIVED LUNATIC.—A remarkable instance of longevity is related by “*Galignani*.” There died at Bicêtre, in January, a patient 103 years of age, who had been an inmate of the asylum since 1797. When eighteen years of age, he received an injury to his head, by the falling of a piece of glass, after which he became insane. He had the delusion that he was made of glass, and under the influence of this belief, he is said to have scarcely moved during the eighty-three years he passed in the asylum, and to have opened his lips intelligently but once during that period, to ask for tobacco.—*Medical Times and Gazette*, February 19, 1881.

PREVENTION OF BROMIC ACNE.—Dr. Fairbairn, of Brooklyn, speaks highly of the use of cod-liver-oil, in conjunction with potassium bromide, to counteract the bad effects of the latter drug. He thus sums up the advantage of the oil: “1st, absence of the digestive disorders; 2d, absence of the acne eruption; 3d, that the anæmia usually found in persons taking this medicine continually, is far from being marked; 4th, the body is better nourished, and appetite unimpaired. I have made trial of this treatment in other cases, with similar good results.”—*The Medical Record*, December 18, 1880.

ACTION OF THE BROMIDES IN EPILEPSY.—Dr. A. Hughes Bennett, Physician to the Hospital for Epilepsy and Paralysis, London, has recently published a statistical inquiry into the action of the bromides in epilepsy, by which he endeavors to show that this disease is far from being the alleged *opprobrium medicorum*.

His statistical tables are very elaborate and replete with interesting data. He concludes that there are few, if any drugs at our disposal, which can be demonstrated to have a more beneficial action in the treatment of disease than the bromides in epilepsy, and declines to admit its incurability. Reported cases of complete recovery, he thinks, are rare, chiefly because a long period of treatment is necessary for success. His favorite prescription is: Pot. Brom., Ammon. Brom. aa. grs. xv., Sp. Ammon. Ar. f3 ss., Inf. Quassia q. s ad f3 i. Thrice daily.

He sums up the inquiry with the following general conclusions:

1. In 12.1 per cent of epileptics the attacks were completely arrested during the whole period of treatment by the bromides.

2. In 83.3 per cent the attacks were greatly diminished both in number and severity.

3. In 2.3 per cent the treatment had no apparent effect.

4. In 2.3 per cent the number of attacks was augmented during the period of treatment.

5. The form of the disease, whether it was inherited or not, whether complicated or not, recent or chronic, in the young or in the old, in healthy or diseased persons, appeared in no way to influence treatment, the success being nearly in the same ratio in all these conditions.

6. In 66.6 per cent there was no trace of bromide poisoning. In the remaining 33.4 per cent this was observed in varying kinds and degrees, but in no case to any serious extent, namely, physical weakness in 28.5 per cent, mental weakness in 18.8 per cent, and the so-called bromide eruption in 16.6 per cent.—*Edinburgh Med. Journal*, February and March, 1881.

TREATMENT OF EPILEPSY.—Professor Ball, of Paris, speaks highly of the combination, in equal parts, of the bromides of ammonium and sodium as an anti-epileptic. He gives about a drachm of the "double salt" as he calls it, daily. At the same time he prescribes a pill containing equal parts of extract of belladonna and oxide of zinc. His formula is:

R Ext. Bellad.

Zinci Oxid. aa. 1 gramme.

Fiant pil. no. XL. Sg. One night and morning.

In obstinate cases four pills may be given. In congested subjects he has recourse to drastic purgatives, bleeding, or the application of leeches to the temples and behind the ear. His formula is:

R Aloës Succotor. 1 gramme.
Resinæ Scamm. }
Resinæ Jalap. } aa. 0. 50 centigrammes.
Calomel. }
Sapon. Amygd. q s.

Ft. pil. no. XXIV. Sg. Six every week, three in the morning on rising and three towards noon.

The superior merit ascribed to this treatment is its almost immediate and continuous action, often beginning from the second day. Treatment must not be suddenly discontinued, but the dose gradually reduced, nor must it be continued for too long a period. The "double salt" does not produce cephalalgia, somnolence and depression, like bromide of potassium. Indeed, it would appear to rouse patients from their torpor and increase their mental activity. Bromide of potassium has no effect in some cases of epilepsy, but Prof. Ball's treatment is said to be invariably beneficial. Lastly, it very rarely causes bromic acne.—*L'Encéphale*, March 1881.

PROFESSOR TAMBURINI ON HALLUCINATIONS.—Prof. Tamburini recalls the different theories which have been advanced on the subject. Some attribute their origin to the peripheral sensory apparatus; others regard them as purely intellectual phenomena, whilst a third doctrine—the psycho-sensorial—ascribes them to a combination of the two former. A fourth theory, according to which hallucinations emanate from the sensory centers, is that to which Dr. Tamburini adheres, but in completing it with still more precise localizations. According to Dr. Luys, hallucinations have their seat in the optic thalamus, being due to a pathological irritation of this region. Dr. Tamburini considers the optic thalamus nothing more than a route by which the conductor fibres pass. According to him, the termination of the fibres of special sensibility occurs higher up than the optic thalamus, in the cortical centers. In support of his theory, the author cites physiological experiments and clinical facts, which confirm the relationship existing between lesions of the parieto-occipital and temporal regions of the cortex, and disturbances of vision and hearing. He also appeals to anatomy and histology. The latter shows the structural analogy of the posterior regions of the cortex with the posterior horns, of the spinal cord, destined to sensibility, whilst the former following the termination of the optic fibres, reaches as far as the occipital lobe.

These are so many proofs which attest the existence of sensory centers in the cerebral cortex. Just as change in a motor center produces epileptiform movements, so does irritation of a sensory center give rise to pathological sensations. These sensations are mnemonic images of impressions received, which are deposited in the sensory centers, whence they emanate in response to stimulation. The hallucination is simple, unilateral, multiple or complex, according as the irritative process is of slight extent or embraces several groups of cells. Dr. Tamburini concludes his article by recognizing as the fundamental cause of hallucinations, a state of excitation of the cortical sensory centers.—*L'Encéphale*, March, 1881.

DR. RÉGIS ON FORCED ALIMENTATION.—In a paper read before the Medico-Psychological Society of Paris, last December, Dr. Régis, of the Sainte-Anne Asylum, discussed the subject of artificial feeding. He alluded to the fact that works on the subject had treated too much of the mere operative procedure to the exclusion of other important aspects of the question. Thus it happens that, as regards practical consequences, little difference is made between transient, and persistent sitophobia, between the patient who refuses food because he is interdicted by celestial voices, or under the belief that it is poisoned, and him whose refusal depends directly upon an organic cause. Where abstinence is dependent, directly or indirectly, upon functional disturbances of an organic nature, he washes out the stomach by means of Colin's pump, with alkaline solutions (bicarbonate of soda or Vichy water), having previously aspirated its liquid (most frequently acid) contents. Not only does this daily practice have a detergent effect on the gastric mucous membrane, but it promotes digestion and corrects the constipation which supervenes in most cases of artificial feeding. He speaks highly of the use of peptones in cases of insufficient and laborious assimilation. These represent, in a small volume, a relatively large quantity of nitrogenous elements, in the form of albuminoids already modified and elaborated by a sort of artificial digestion. Dr. Régis has devised a means of positively determining whether or not the tube has entered the trachea, in any doubtful case. He refers particularly to cases of profound melancholia accompanied by debility and anæsthesia, where the introduction of the tube into the air passages is followed by no appreciable reaction. His invention consists of a tube of small calibre, armed at its extremity with an inflatable piece of caout-

chouc, and which, in a state of vacuity, may be easily introduced into the stomach within an ordinary tube. The tube inserted, he forcibly injects air by means of a ball, and thus causes the india rubber to dilate, when, if the trachea has been entered, symptoms of asphyxia at once supervene, while nothing unusual occurs if the instrument is in the œsophagus. In the former case, the air is allowed to escape and the tube instantly withdrawn and reintroduced.—*Annales Médico-Psychologiques*, January, 1881.

GENERAL PARALYSIS IN AN IMBECILE.—M. Christian relates a case of general paralysis in a man who, born in 1824, was under treatment by Calmeil, at Charenton, from 1855 to 1860, as an imbecile. His friends assumed the care of him till 1878, when he again became disturbed, having delusions of persecution, and manifesting marked mental enfeeblement. Cerebral congestions became frequent, and a general paralysis was observed to appear and follow a usual course. M. Christian thinks that the coincidence of the two conditions has not yet been described, although M. Foville has observed a similar case. He sees no reason why a meningo-encephalic inflammation, which produces general paresis, should not occur in a feeble-minded person as well as in one in the enjoyment of all his faculties. Were the cerebral congestions the cause of the meningo-encephalitis, or are they to be regarded as symptoms of the affection? The answer will necessarily vary according to our theory of the mode of development of general paralysis.—*Ibid.*

DR. C. REINHARD ON HYOSCYAMIA.—Dr. Reinhard, of the Dalldorf Asylum, Germany, sums up his views on the use and effect of hyoscyamia, as follows:

First. Hyoscyamia has a calmative effect in many cases of mania, and shortens their duration. It seems to act most favorably in states of excitement which occur synchronously with the catamenia.

Second. It sometimes acts favorably in epilepsy, in so far as it diminishes the number and intensity of the seizures.

Third. The state of the pulse seems to be one of the conditions of favorable operation; it must be contracted and tense.

Fourth. Contra-indications are diseases of the arteries, heart and lungs. On account of its effect on the heart and nutrition, it

ought never to be used for a long period of time consecutively. The main danger lies in paralysis of the heart.

Fifth. On the whole, to hyoscyamia as a therapeutic agent, only moderate value can be ascribed.—*Archiv. f. Psych. u. Nervenkr.*, XI Bd., 2 Heft.

WOMEN versus SPECIAL BRAIN-WORK.—The London *Lancet* for March 5th contains a leading article on the "Influence on Women of Special Brain-Work," in which the ground is taken that the higher education of women is radically an economic mistake. While it admits that the physical basis of mind may be improved by the force of culture through successive generations, the attempt is made to show that, when carried beyond certain limits, this very process of development involves destruction and exhaustion of intellectuality. The not unfrequent mental instability of children of highly cultivated parents and forefathers, with its liability to degenerate into a neurosis, is thus accounted for; and this is said to be especially true of males in a family remarkable for the culture of its female members. "In the ordinance of nature the female is endowed with a force tending to the reproduction from her arrested or suppressed organism of the perfect organism of the male. It is essential to the accomplishment of this physiological task that the female should be trained for the development of *capacity*—that is receptivity—as a cerebral property, rather than impressed with the particular bias of education in a special class of subjects, or on formulated lines." This distinction is claimed to be borne out by the experience that the male children of mothers, who have been distinguished for *special* mental attainments, are not, as a rule, noted either for intellectual power or achievements; whereas the male offspring of women of *general* intelligence, without special talents, do, as a matter of fact, commonly exhibit these latter characteristics. "Experience seems to show that special brain-work, on the part of the mother, exhausts the energy of brain-development—or reproduction—which, if conserved, would express itself in the mental perfection of her male offspring. The operation of the law of 'development by work'—universal in its application under normal conditions—seems to be suspended when the work done is the result of a concentration of energy, by which force is drawn off from centers other than those thrown into special activity." The article does not question the educability of women to the level of men in any

particular direction, the greater pliability of the female mind seeming to render it, indeed, all the more susceptible of special achievements. It insists, however, that "the possible is not always the prudent," and, in conclusion, raises a warning voice against jeopardizing the feminine stock and the entire race by encouraging women to stray beyond their appointed sphere, for the sake of mere ephemeral distinction—a mischief which can not but eventuate in increase of mental enfeeblement and insanity.

BIBLIOGRAPHICAL.

BOOK NOTICES.

A Treatise on Common Forms of Functional Disease. By L. PUTZEL, M. D., Physician to the Clinic for Nervous Diseases, Bellevue Hospital, etc., etc. New York: Wm. Wood & Co., (Wood's Standard Medical Library), 1880.

Dr. Putzel, while declaring that he is not one of those who "sneer at the term 'functional' disease and deny its very existence," is "fully convinced, in view of the fruitless search of pathological anatomists," that the diseases considered in this work "present no primary anatomical changes which are visible to the naked eye or to the microscope—in other words, that the changes in structure are of a molecular nature." He expresses the opinion that perhaps the solution of their pathology lies in the way of physiological chemistry.

The diseases treated of in this work are chorea, epilepsy, neuralgia and peripheral paralysis.

The first disease treated of is chorea, and the chapters devoted to its consideration are among the best in the book. The section upon pathology reviews the various opinions which are held, but does not add anything definite to the subject. Nothing new is suggested in the line of treatment.

Following that upon chorea, comes the section on epilepsy, which is, for the brief space it necessarily occupies, an excellent consideration of the subject. The matter is illustrated by the recital of interesting clinical cases. Regarding the pathological explanation of the phenomena observed in epilepsy, the author, while refraining from committing himself to any theory, evidently leans to that of Hughlings-Jackson.

The remaining portions of the work are fairly up with the times, and the book, as a whole, makes a convenient collection of well-digested facts upon four subjects of importance and interest to the general practitioner as well as the specialist, while it is for the former that this work is more especially intended.

Diagnosis and Treatment of Ear Diseases. By ALBERT H. BUCK, M. D., etc. New York: Wm. Wood & Co., (Wood's Standard Medical Library), 1880.

This work is mainly the result of the personal experience of the author, it having been his aim "to present in text-book form, a picture of diseases of the ear, as they have appeared to me in private and hospital practice," and to describe "those methods of treatment * * * found both safe and efficient."

Opening with a somewhat cursory sketch of the physiology of the ear, involving also an outline of its anatomy, Dr. Buck passes on to a description of the methods of making examinations of the ear, and the instruments to be employed. Diseases of the auricle come next upon the list involving a discussion of eczema, inflammation, hæmatoma or perichondritis, new growths—tumors, etc.—and miscellaneous diseases involving congenital malformations. In treating of hæmatoma auris, the author refers, among other papers, to the article by the late Dr. Hun, published in this Jour-

NAL, July, 1870. After discussing the various theories that have been suggested to account for this disease, Dr. Buck says that the facts "justify the belief that insane persons are more liable to the disease under consideration, simply because mal-nutrition reaches a higher grade among them (taken as a class) than among the mentally sound." While this may account, in some measure, for the condition, we are inclined to the belief that grave disease of the nervous centers to be anticipated in this class, more fully accounts for the greater frequency of the disease among the insane.

We are not so sanguine as is Dr. Buck, that a cure can be brought about in many of these cases without deformity.

The description of the various diseases of the auditory canal, middle ear, etc., are excellent, and the treatment advised is judicious and the result of an intelligent application of the fruits of an extended experience. In advising the use of instruments rather than the syringe in removing impacted cerumen, Dr. Buck has stepped over the bounds established by tradition, and will, in consequence, be criticized by some. With the majority of such cases occurring in the insane, we believe the syringe, though less expeditious, to be more safe; but in hands accustomed to delicate manipulative efforts, proper instruments, such as described by Dr. Buck, will be equally safe, more satisfactory and expeditious. We commend the work as among the best practical treatises on ear diseases.

Medical Heresies: Historically Considered. A Series of Critical Essays on the Origin and Evolution of Sectarian Medicine, embracing a Special Sketch of Homœopathy, past and present. By GONZALOO C. SMYTHE, A. M., M. D., etc. Philadelphia: Presley Blakiston, 1880.

This book after a rapid and interesting sketch of the various systems of medicine, which have flourished

from time to time, is mainly devoted to a consideration and calm argumentative refutation of the claims of homœopathy to be considered as a scientific system of medicine. The chapters are interesting, and, if placed in proper hands, would prove of value perhaps; but, on the whole, we doubt the utility of efforts spent in this direction. The majority of adherents to the various "isms" of medicine have generally become so upon grounds which it would seem useless to attempt to refute by reason or example.

How a Person Threatened or Afflicted with Bright's Disease Ought to Live. By JOSEPH F. EDWARDS, M. D. Philadelphia: Presley Blakiston, 1880.

In the hands of a physician well versed in the symptomatology, pathology and treatment of Bright's disease, this little primer might afford a few moments of profitable diversion by calling to mind such simple facts regarding diet, hygiene, etc., as had escaped his memory or notice; but we doubt its value in the hands of lay readers—believing in the old theory that with an ordinarily active imagination, and a popular medical work, most individuals will read themselves into a conviction that they have any or all of the diseases described.

Aphorisms in Fracture. By RICHARD O. COWLING, M. D. Morton's Pocket Series, No. 2. Louisville: 1880.

This little pocket edition of "Aphorisms" is really an excellent memorizer, and more a safe guide in the treatment of most fractures. Written in its author's well known terse style, the directions can not well be misunderstood, and their value is enhanced by the fact that they aim directly at the mark and do not stray into the by-roads of theory or experimentation. As

most of our readers know, the talented author has recently died in the midst of his career from rheumatic endocarditis, and we can not close this notice without placing on record our appreciation of his value as a physician, a man, and best of all as a friend.

REVIEW OF AMERICAN ASYLUM REPORTS, 1879-80.

MAINE:

Report of the Maine Insane Hospital: 1880. Dr. H. M. HARLOW.

There were in the Hospital, at the date of the last report, 419 patients. Admitted since, 188. Total, 607. Discharged recovered, 57. Improved, 33. Unimproved, 43. Died, 38. Total, 171. Remaining under treatment, November 30, 1880, 436.

The Trustees in their report express their conviction concerning the increase of insanity, and cite the experience of the Maine Hospital, in a steadily increased average number under treatment, as supporting this theory. We doubt the accuracy of conclusions drawn from the experience of a single hospital. Moreover, the Trustees seem to wholly overlook the increase of population in their State from 1870, when the average under treatment was 363, to 1880, when it rose to 412.

The Trustees have adopted wire mattresses instead of the straw ticks, which they state in point of comfort, cleanliness and economy, justifies the expenditure. There can be no question that in all hospitals for the insane wire mattresses are not only the most economical, but the true sanitary device. They speak of an effort to utilize the sewage of the institution to enrich the land by carrying it some distance into a vat, where a pump is placed driven by a wind-mill. In this way they propose to flow it over the ground. As the works

were only completed last fall they can not give any results. The Trustees state that the water supply has always been deficient. "The supply for domestic use was not in excess of 7,000 gallons per day when water was most abundant," and "the only fire protection was by means of a hand engine and some small underground sewers, and some six or seven chemical fire extinguishers."

The disastrous fire in the Minnesota Asylum seems to have aroused the Trustees to the importance of securing a larger supply of water. From a well they now receive over 20,000 gallons a day, and they have constructed a storage reservoir to contain 5,000,000 gallons. This they hope to keep full from the surplus of the well and the rainfall. The Trustees say that from motives of economy, and after careful consideration, they have "decided to dispense for the present with the office of assistant physician," by which they claim "we are saving the State an expense of \$1,200 to \$1,500, annually." This reduces the medical staff of the asylum to the superintendent and one assistant, with a daily average of 412 patients. This is economy in the wrong direction.

VERMONT:

Biennial Report of the Vermont Asylum for the Insane: 1879-80.

Dr. JOSEPH DRAPER.

There were in this Asylum, at the date of last report, August 1, 1878, 459 patients. Admitted since, 177. Total, 636. Discharged recovered, 36. Improved, 49. Unimproved, 55. Died, 49. Total, 189. Remaining under treatment, 447.

The Trustees report that extensive alterations and repairs have been made in some of the wards, and that these have somewhat reduced the capacity of the insti-

tution, some of the space devoted to sleeping rooms having been appropriated to other "important uses." The system of steam heating has been completed, and a fan for forced ventilation introduced, "from which all the benefits hoped for have been fully realized."

The Superintendent, after a resumé of the work of the biennial period which the report covers, makes some remarks upon the "Causes and Phases of Insanity." He believes that "constitutional predispositions operate much more potently in the production of insanity than the multiplied, exciting causes which have come to be regarded as factors."

Dr. Draper believes in heredity as actively operative in the production of insanity, and seems to lean to the theory that pauperism and crime are also fostered and increased by this means.

MASSACHUSETTS :

Third Annual Report of the Temporary Asylum for Chronic Insane at Worcester. Dr. HOSEA M. QUINBY.

There were in this Asylum, at the date of last report, September 30, 1879, 371 patients. Admitted since, 42. Total, 413. Discharged, improved, 6. Unimproved, 11. Died, 23. Total, 40. Remaining under treatment, 373.

This Asylum is gradually being remodeled to meet the present "ideas as regards light and ventilation," and, aside from the tables and a few remarks upon the employment of patients, the report consists of a description of the work done in this direction.

Forty-Eighth Annual Report of the State Lunatic Hospital at Worcester: Dr. JOHN G. PARK.

There were in the Hospital, at the date of last report, September 30, 1879, 490 patients. Admitted during

the year, 233. Total, 723. Discharged recovered, 41. Improved, 52. Unimproved, 50. Died, 47. Total, 190. Remaining under treatment, 533.

The Superintendent has prepared a series of tables, which include all the cases admitted to the Hospital since its opening, and give, as far as it was possible to obtain it, the hospital history of each patient, including the number of times admitted to the Hospital, and the number who, upon discharge from the Hospital, were sent to institutions of a similar character. From a study of this table, it is seen that of the 12,401 cases admitted from the opening of the Hospital, in January, 1833, to September 30, 1880, 3,155 were re-admissions, 1,316 had previously been inmates of other hospitals, and 1,195, upon their discharge, were removed from this to other hospitals. The number of first admissions to the Asylum, was 9,246, Of these, 3,371, or 36.46 per cent have been discharged recovered. Of the 3,155 re-admissions, 1,263, or 40.05 per cent have been discharged recovered. These are divided as follows: 1,891 are second admissions, 649 of whom recovered; 588 are third admissions, 257 of whom recovered; 254 are fourth admissions, 115 of whom recovered; 126 are fifth admissions, 65 of whom recovered; 68 were sixth admissions, of whom 46 recovered; 47 are seventh admissions, of whom 28 recovered; 35 are eighth admissions, of whom 20 recovered; 29 were ninth admissions, of whom 18 recovered; 25 were tenth admissions, of whom 15 recovered; 23 were eleventh admissions, of whom 11 recovered; 18 were twelfth admissions, of whom 11 recovered; 15 were thirteenth admissions, of whom 8 recovered; 10 were fourteenth admissions, of whom 8 recovered; 8 were fifteenth admissions, of whom 5 recovered; 4 were sixteenth admissions, of whom 3 recovered; 4 were seventeenth admissions, of whom 3

recovered; 4 were eighteenth admissions, of whom 2 recovered; 2 were nineteenth admissions, of whom 1 recovered. There were one each of the twentieth, twenty-first, twenty-second and twenty-third admissions, all of whom recovered.

These statistics are certainly remarkable, and would seem to show that, in that Institution, the re-admissions present the largest percentage of recoveries. The tables distinguish between persons and cases. For instance, the number of cases admitted to the Worcester Hospital, for the fiscal year, covered by this report, is 233, while the number of persons represented, is but 222—"ten cases being re-admissions of persons discharged during the year, and one being simply a transfer from private to State account." The habit of counting cases discharged and returned during the same fiscal year, as "re-admissions," probably accounts, in a large measure, for the fact that the number of persons treated at the Worcester Lunatic Hospital, represents but three-fourths of the number of cases. This discrepancy between "persons" and "cases," is increased, in a small measure also, by the custom of counting a case "re-admitted," whose charge has simply been transferred from private to public account, or *vice versa*. One hundred and fifty-two "re-admissions" have occurred, since the opening of the Hospital, in this manner, without the persons represented leaving the Hospital.

From a study of Dr. Park's tables, it will be seen that 1,264, or about one-tenth of the number of cases treated, have been admitted three or more times. Of these, 614 have been discharged recovered. When such statistics as these are presented for the consideration of thoughtful persons, it is not surprising that statistical statements concerning the curability of in-

sanity, should be called in question. It seems to have fallen to the lot of the Worcester Asylum, to have received and discharged a large number of paroxysmal cases of insanity, cases which ought not to be tabulated among recoveries. These statistics, if they prove nothing else, show plainly that the individual or individuals who have the construction and compiling of statistics like these, must be taken into account, in drawing conclusions from them, and that the personal equation is by no means an unimportant one, in making deductions from asylum statistics.

Twenty-fifth Report of the State Lunatic Hospital, at Northampton. DR. PLINY EARLE.

There were in this Institution, at the date of last report, September 30, 1879, 442 patients. Number received during the year, 117. Total, 559. Discharged, recovered, 28. Improved and much improved, 34. Unimproved, 19. Died, 29. Total, 113. Remaining under treatment, 446.

As has been the case in previous reports Dr. Earle has considerable to say upon the curability of insanity. Speaking of the recoveries in his hospital for the past year, he says: "Of the 84 patients who left the hospital in the course of the year, there were 28 * * * who, according to our standard of mental health and our judgment in regard to the extent to which, in individuals, that standard is modified by temperament, idiosyncrasy, education and habits, were properly recorded as recovered. No person recovered twice within the year, and consequently the number of *persons* and of *patients* who recovered was the same."

Seven of the cases which recovered were re-admissions. Two had been previously admitted once each, four twice each, and one eleven times.

"In three of the persons the mental disorder could properly be called constitutional recurrent mania, and in three others it appeared to be the consequence of the excessive use of stimulants."

Of the seven persons who had been treated previously in the hospital, two men had recovered once each, one of whom had also been discharged improved once; one man had been discharged much improved, one woman had recovered once and improved once, and two women had recovered twice, and one woman recovered eight times and improved three times. The whole number of former recoveries of this group was 15. These same persons have now been discharged recovered a total of 22 times. One of the group, a man, we are told, committed suicide by drowning about ten months after his discharge.

Dr. Earle bases his remarks upon the curability of insanity largely upon the statistics of the Worcester Hospital, some of whose remarkable features we have already touched upon in an analysis of the last report of that institution. If the methods which have been followed in that institution in the preparation of statistics have been common throughout the State of Massachusetts, we are not surprised at the unsatisfactory conclusion to be drawn from Massachusetts' Asylum statistics. In the report of Dr. Earle's institution now under consideration, we are told that the mental disorder in three of his recoveries for the last year "appeared to be a consequence of the excessive use of stimulants," cases which we suspect in many institutions would have been discharged as cases of intemperance, and "not insane." Indeed it appears to have been so rare to discharge patients as "not insane" from Massachusetts asylums that the forms for the preparation of statistical tables, adopted by the Massachusetts

State Board of Health, Lunacy and Charity, contain no provisions for this class of cases, and we find, in corroboration of this, that of the 12,401 cases, representing 9,246 persons admitted to the Worcester Hospital since 1833, but four have been discharged "not insane," a condition of affairs which either reflects credit upon Massachusetts physicians who have examined cases for admission into asylums, and upon courts and juries who have had to deal with criminal cases who have interposed the plea of insanity, or shows that the table of recoveries has been made to include numerous cases of ordinary delirium from fever, meningitis, etc., and cases of hysteria, intemperance, and opium habit which inevitably find their way into asylums.

This is not the occasion to discuss the familiar views of Dr. Earle, or to attempt to controvert any of the seven propositions or conclusions which he has published. We hazard the opinion, however, that the examination and tabulation of a large number of admissions to an asylum, where care has been taken to draw a line between cases of true insanity and those mentioned above, and where paroxysmal and periodical cases have been regarded as such and have not been allowed to appear in the table of recoveries, would fail to reveal a condition of affairs which would confirm Dr. Earle's conclusions, but that on the contrary the generally accepted views regarding the curability of insanity would be found in the main to be correct.

Twenty-Seventh Annual Report of the State Lunatic Hospital at Taunton. Dr. J. P. BROWN.

There were in the Asylum, at the date of last report, 559 patients. Admitted during the year, 190. Total, 749. Discharged recovered, 49. Improved and much improved, 64. Unimproved, 34. Died, 46. Total, 193. Remaining, September 30, 1880, 556.

Dr. Brown evidently does not share Dr. Earle's views regarding the curability of insanity. Speaking of the discharges in the institution, he says:

"Some of those discharged recovered will become insane again; and it is possible that some have been discharged recovered who had recurrent mania, the type of the disease not having been fully developed. Others may have fresh attacks of insanity from the same or other exciting causes, but if other attacks do occur it will not necessarily follow that recovery was not made from the first. We do not so reason in regard to other diseases. We do not say that a person with a rheumatic diathesis, who had had repeated attacks of rheumatism, but during the intervals is free from it, has not recovered from each attack. We say he has recovered, but is liable to have it again; so with other diseases which are repeated from constitutional tendencies. It is evident that a person may have several attacks of insanity in which the disease may spring up *de novo* each time."

Referring to the table on causation, the Doctor says:

"Could a complete history of each case of insanity be obtained no doubt the percentage of causation from hereditary influence would be much increased. It may be seen from the same table that intemperance, as in years before, takes a leading place among the causes of insanity of those admitted during the year; but any statistics on the subject must necessarily be very imperfect, and may express a larger or smaller number of persons actually made insane by intemperance than the facts would warrant if accurately obtained. If a person has been drinking to excess before his committal to a hospital, intemperance is often assigned as the cause of his insanity, when in fact it may be only a symptom or result of a diseased brain, as is often the case in general paralysis and other forms of brain disease."

The report closes with a recapitulation of the work done in the institution, and a statement of the repairs which are still necessary.

Third Annual Report of the State Lunatic Hospital at Danvers.
Dr. HENRY R. STEDMAN.

There were in the Asylum, at the date of last report, 533 patients. Admitted during the year, 581. Total,

1,114. Discharged, recovered, 165. Improved, 106. Unimproved, 151. Died, 83. Not insane, 2. Total, 507. Remaining under treatment, September 30, 1880, 607.

Dr. Stedman informs us that at the time of making this report there were in the asylum nearly 90 patients upon whom no key is turned, who are at liberty to leave their rooms at any time of day, and who may, without attendance, go wherever they please, provided they promise not to leave the grounds. This freedom, he says, has been found to be of advantage, and declares that the patients have not taken advantage of the liberty thus accorded to elope. As evidence of this fact, he points out that of the 34 elopements during the year, but five were by patients living on the open wards; that of these, three were habitual drunkards.

Accompanying the Superintendent's report is that of the Pathologist, which, however, contains nothing of interest.

This report is made by Dr. Stedman, who has been Acting Superintendent since August 9th, at which time Dr. May resigned the superintendency.

RHODE ISLAND:

Thirty-Seventh Annual Report of the Butler Hospital for the Insane. Dr. JOHN W. SAWYER.

There were in the Hospital, at the commencement of the year, 148 patients. Admitted since, 122. Total, 270. Discharged recovered, 38. Improved, 40. Unimproved, 13. Died, 8. Total, 99. Remaining under treatment, 171.

The Trustees, in referring to the beneficent work of the institution say:

"There has been a continued and regular progression. The patients enjoy a greater variety of better and more carefully prepared food. They have better furniture, greater freedom, more out-of-door exercise, more recreation, and there is better opportunity for the encouragement, whenever possible, of cultivated and refined tastes."

As one instance of the increased facilities for recreation, the Trustees mention the fact that, "ten years ago a single horse and carryall, with the assistant physician at odd times as driver, furnished all the carriage exercise available for the patients. Now eight horses, with comfortable carriages and three drivers, are at their service."

Among the special improvements during the past year has been the construction of a large bay window on one of the female wards, the gift of Dr. Isaac Ray. This institution closes the year with a larger number of patients than at any time since its opening, and the report of the Superintendent and Trustees show that the work under their direction is being carried on with a view to the best interests of the insane for whom they are called upon to care.

CONNECTICUT :

Fifteenth Report of the Connecticut Hospital for the Insane.
Dr. A. M. SHEW.

There were in the Asylum, at the date of last report, 510 patients. Admitted during the year, 144. Total, 654. Discharged recovered, 30. Improved, 29. Unimproved, 37. Died, 30. Total, 126. Remaining, 528.

To meet the call for increased accommodations, and at the same time to provide for the accumulation of chronic insane in the State, there is being erected on the grounds of the Hospital "a group of brick buildings, in which provision will be made for 262 of the more quiet chronic patients who require little medical care."

Dr. Shew says that to give accommodations to some of the patients who were waiting, and for whose admission application had been made, "we have recently remodeled and furnished a farm house, situated one-half mile to the rear of the hospital, which affords good accommodations to twenty quiet female patients." This makes the third building of the kind now in use at the Hospital. The doors are unlocked and the windows unguarded. The Superintendent says, "we have for ten years treated insane patients in two 'open' cottages. To reason from this that all patients could be thus cared for would be illogical." If persons can remain half a mile away from the main building and need little or no professional care, and the doors and windows can all be left open and unguarded, the question naturally arises why they should be on hospital grounds at all, and why they should not return to their homes?

Regarding the popular idea that insanity is increasing, Dr. Shew remarks that there are facts to be taken into consideration—first, that the population is increasing and that the present methods of care and treatment of the insane are such that their lives are immeasurably prolonged. He says that it can be shown by actual records that the proportion of new or recent cases occurring in the State of Connecticut during the past year bears about the same relation to the total population as did the number of new cases to the population twenty years ago. He calls attention to the fact that the apparent increase is caused also by treatment in hospitals of cases which a few years ago were kept quietly at home, and consequently away from public notice.

NEW YORK:

Twenty-First Annual Report of the Asylum for Insane Criminals, Auburn. Dr. THEODORE DIMON.

There were in the Asylum, at the close of the last fiscal year, 135 patients. Admitted during the year, 45. Total, 180. Discharged recovered, 14. Improved, 2. Unimproved, 3. Not insane, 8. Died, 4. Total, 31. Remaining, September 30, 1880, 149.

Dr. Dimon in his report makes some remarks upon the occurrence of insanity among convicts. Crediting the convict insane sent to the asylum to the prisons to which they were originally sentenced, he finds that there were sent from the Auburn Prison, with a population of 900, seven insane criminals; from the Clinton Prison, with a population of 500, four insane, and from Sing Sing, with a population of 1,500, twelve insane, or a proportion of about eight-tenths of one per cent of the population of each prison were found to be insane during the past year. Extending his inquiries still farther, Dr. Dimon finds that there were in the Asylum, on the 30th of September last, 93 male patients sent from State prisons, with a probable prison population of 2,900, giving the proportion of the insane to the entire prison population of three and one-fifth per cent, or ten times the estimated proportion of male insane to the male population of the State.

Is this legitimate statistical information? The proportion of insane to the general population of the State is based upon a reasonably fixed population ascertained with sufficient accuracy by census enumeration, while the proportion of insane to the prison population is based upon a constantly changing number of individuals. Indeed a considerable portion of the 93 insane convicts entering into this calculation may have been drawn from prisoners whose terms of service hav-

ing expired, have been absorbed into the general population of the State.

As a conclusion to some quite interesting remarks upon the influence of long and short sentences upon the production of insanity in prisons, Dr. Dimon says: "I am satisfied that depression and despair arising from contemplation of long, future deprivation of liberty, and fear of dying before termination of sentence, act directly in developing insanity in the prisons." He further says, after an examination of the subject, and after showing that other diseases than insanity are not prevalent in State prisons, that it is a fair inference that convicts bring into prison an unusual predisposition to insanity, and that long sentences are among the exciting causes in developing it. "Given," he says, "a criminal diathesis add to it alcoholism and syphilis, and you have the history of a large number of chronic insane.

Annual Report of the Willard Asylum for the Insane: 1880.
Dr. JOHN B. CHAPIN.

There were in the Asylum, at the close of the last fiscal year, 1,502 patients. Admitted since, 280. Total, 1,782. Discharged recovered, 16. Improved, 39. Unimproved, 9. Died, 89. Not insane, 1. Total, 154. Remaining, 1,628.

The total number received since the opening of the Institution, in 1869, is 2,677. During the same period, there have been admitted to the Utica Asylum, 4,877 cases, or nearly double the number. Sixty-three have been discharged recovered since the opening of the Asylum, 188 improved, 164 unimproved, 632 died and 2 were not insane. It would be interesting to know how many of those discharged not recovered were able to return to their homes, and how many were sent to

County Asylums. As to the duration of insanity before admission, the statistics show that 70 of the cases had been insane over 30 years, 123 over 20 years, 379 from 10 to 20 years, 497 from 5 to 10 years, 984 from 1 to 5 years, while in 65 cases, the insanity was *less* than 1 year in duration. In 559 cases, its duration was *unascertained*. The average duration of insane life in those who died was about 11 years.

The Trustees state that the Institution has, with the new group of buildings just completed for the women, accommodations for from 1,750 to 1,800 patients.

In his remarks upon labor and employment for patients, Dr. Chapin asserts that there is a very marked difference in the *morale* and personal traits of character, as regards tractability and submission to authority, between the English lower classes and our own. He says "that, while patients in the Asylums of Great Britain are said to preserve the docile and tractable manner which characterize them in their sane state, in this country, the same kind of persons, as well as the natives, assume an independence, and refuse, oftener, to perform the simplest labor, unless paid the usual wages, preferring to be supported in idleness than to do anything to contribute to the general welfare, or to lighten the cost of support."

Dr. Chapin believes that many have been too sanguine in their expectations from labor of the insane, looking even to great diminutions in the cost of maintenance, if not to actual self-support. He says:

"The report of labor and occupation shows that the patients have been occupied a stated number of days. It must not, however, be inferred from all this that the result was profitable, and that it was indispensable to the administration of the Asylum, or that it was equivalent to work for which money would be paid. It is erroneous to suppose, as has been publicly stated, that the quantity and quality of the labor of the insane will equal that of

the same number of the sane. The wages of attendants who supervise it is always a serious offset against the avails. The value of the labor of the insane, considered solely from a pecuniary view, would not be appreciable in comparison with the great plant and machinery necessary to develop it and give it practical direction. Neither should the community be impressed with the idea that a system may be devised under which all the insane may be induced to labor, and that the administration of the Asylum is censurable to the extent that it fails in this respect. In answer to such an assumption, it should be sufficient to state that nearly two-thirds of the earlier admissions here had not the mental capacity to dress themselves or attend to the calls of nature, much less the ability to engage in mechanical trades or in skilled labor. Though the character of the admissions during the last half of the present decade of the Asylum history has changed very much for the better, it must still be borne in mind that the population of the Asylum is made up largely of persons of enfeebled mental power, and of those whose physical condition is so impaired as to unfit them for continuous manual labor. Another class possesses the physical ability to labor, but by reason of dangerous delusions and propensities, are unsafe to be at large, or are harmless, and not having the mental capacity for self-preservation or support, without friends to exercise any custodial care or a place of abode, they drift into an asylum as a final refuge.. Many of this class possess the physical strength and intelligence to labor, but decline to do so on account of strong delusions, or unless paid a compensation beyond the ability and policy of the institution to offer."

Dr. Chapin has unusual facilities for solving this problem, with a farm of 792 acres at his disposal. In regard to the introduction of mechanical trades, he recognizes the risk of thereby increasing the cost of support; an interesting fact and one of important bearing upon the subject is mentioned in this connection. By a comparison of 335 admissions into one of the asylums of England, with 280 admissions into the Willard Asylum, it is shown that in the former 61 different trades or occupations were represented; in the latter but 26. While these statistics probably point to a difference in the social system of the two countries,

as far as the training up of the young to some distinctive trade is concerned, the real value of the comparison is lost by the absence of any information concerning the occupation of the people in the districts from which the admissions to the two Asylums are drawn.

Annual Report of the Bloomingdale Asylum. Dr. CHARLES H. NICHOLS.

There were in the Asylum, on the first of January, 1880, 184 patients. Admitted during the year, 114. Total, 298. Discharged recovered, 24. Improved, 30. Unimproved, 7. Died, 23. Total, 84. Remaining under treatment, 214.

Dr. Nichols takes a pessimistic view of insanity and its treatment when he says:

"It has long been obvious to alienists that throughout the most enlightened countries of the globe insanity is not only increasing in proportion to population, but is becoming less curable. The character, in respect to prospect of recovery of the cases received this year illustrates the second branch of this thesis. Not less than 48 of the admissions were affected with forms or complications of disease that are insusceptible either of complete or permanent amelioration."

"The most important event of the year was the opening of the John C. Green Memorial Building for the reception and treatment of patients." This building is designed for the reception of women patients, and, being situated on the west side of the grounds, its opening necessitated the transposition of the entire number of patients, the women from the east to the west wing, the men taking their places.

Dr. Nichols recapitulates the repairs and additions which have been made during the year, some of which have been quite expensive, including, among other things, an entire change in the method of heating the original buildings.

Annual Report of the New York City Asylum for the Insane:
1879. Dr. A. E. MACDONALD.

There were in the Asylum, at the date of last report, January 1, 1879, 989 patients. Admitted during the year, 393. Total, 1,382. Discharged recovered, 53. Improved, 60. Unimproved, 23. Not insane, 5. Died, 145. Total, 286. Remaining, 1,096.

Dr. Macdonald remarks that "the entire cost of providing food, clothing, medical stores, fuel, gas and other necessities, of keeping the buildings in repair and of remunerating officers and employees, has been at the rate of thirty cents a day for each patient. That everything that should be done for the comfort and care of the patients is accomplished with this meagre allowance, can not be claimed. All that is claimed is, that the most possible is made of it, and that the condition and progress of the Institution and its inmates are creditable under existing and adverse circumstances."

During the year 1879, the Commissioners created a Board for inspection, consultation, &c., which in some measure assimilates the Institution, in its supervision by the Commissioners and this Board, to that of the State Asylum, where the Board of Managers have the power and exercise the responsibility of the entire management. This Board consists of Drs. James R. Wood, Alfred L. Loomis, Austin Flint, Jr., Charles I. Pardee, M. A. Pallen, Edward G. Janeway, Allan McLane Hamilton and W. V. White.

The Institution is over-crowded, and Dr. Macdonald reiterates the demand for increased accommodation.

ASYLUMS FOR INSANE CRIMINALS.

Among the suggestions contained in the late address of Governor Long, of Massachusetts, on the subject of State Charities, we are glad to see one relating to the separate classification of insane criminals, and their care and custody in distinct asylums, or separate departments of penal institutions. Governor Long says :

“It is desirable that there should be a more intelligent classification of the insane, instead of herding them all together. I see no reason why, taking some of our State and County buildings, which I understand are available for the purpose, separate provision should not be made, for instance, for the *criminal insane*, a hundred of whom, perhaps, could now be collected apart, thus humanely and justly relieving the others from what they and their friends rightly feel to be a reproach and a constant personal danger, and also relieving the growing pressure of numbers to be provided for in present quarters. I am advised that this classification should be made at an early date.”

It is matter of extreme gratification to see, even at this late day, one more State, if indeed the Legislature of Massachusetts shall resolve to carry out the Governor's recommendation, falling in with the policy adopted in New York, as long as twenty-one years ago, in regard to the separate provision for insane criminals. It seems incredible that this most important measure should have waited so many years for imitation in this country, and that what has been so long recognized in this State and in Great Britain, as an obvious measure of necessity, should still be overlooked, to use the mildest term, in nearly all the States of this Union. One could hardly overestimate the deleterious and demoralizing influence on a body of patients from the general mass of the community, subjected simply to the

misfortune of a disease that has disordered their reason, than the forced association and companionship with convicts and outlaws from society, whose antecedents are generally of the worst description, and whose insanity, in many cases, instead of eliminating, has only supervened upon and intensified an inbred criminal disposition and habit of thought.

The law establishing and regulating the Asylum for Insane Criminals at Auburn, in this State, will be found in the digest of the New York Statutes of Insanity, revised and consolidated in Chap. 446 of the Laws of 1874. From this it will be seen that not only convicts in our State Prisons, who become insane during confinement can, on proper examination and medical certificate, be remanded to this institution, but also any person under indictment for crime, either on or before arraignment, may, by summary process in the Court of Oyer and Terminer, be examined as to his sanity, and, if found insane, be remanded to this asylum, or any other of the State asylums, as well as those who are acquitted on trial on the ground of insanity. It lies in the breast of the court to ascertain the fact and continuance of such insanity, and to order the person into confinement in any of the State institutions. Similar powers are given to the Governor and to County Judges. Similar provisions are made in the case of prisoners in penitentiaries, and criminals that may be found in other State asylums. When a convict recovers before the expiration of his sentence, he is remanded to prison to serve out his sentence. If he continues insane after the expiration of his sentence and is safe, he may be sent back to the county from which he was sentenced to prison, or his friends, on sufficient security, may assume his charge, or he may be retained by order of the County Judge. When a person under indict-

ment recovers, he is liable to the resumption of criminal proceedings. All other necessary details and contingencies are provided for.

The last report of the Auburn Asylum (to October 1, 1880,) shows that the number admitted, since its opening in 1859, has been 574; discharged recovered, 143; remaining, October 1, 1880, 149.

The Criminal Asylum at Broadmoor, in England, has 478 patients—370 men and 108 women—of whom 41 were certified insane before trial, 113 were so certified on arraignment, 244 acquitted for insanity, and 80 certified after sentence. The classification here takes into account not only the broad distinction between the “convict class,” or those who become insane after sentence, and have developed the criminal disposition, on the one hand, and on the other those who committed their deeds under the access of insanity—a very different class—but also taking into account the individual antecedents, the nature of the crime, the peculiar form of derangement, and other circumstances. As a matter of fact a large proportion of those cases found insane before arraignment, or who were insane at the commission of their offense, are sent to ordinary asylums as in New York. We observe, also, that in England as here prisoners, whose sentences expire before recovery, are generally sent to the County asylums; but, by a sort of common consent, these institutions pass them on to the “Fisherton Home” in Salisbury, a special private establishment expressly designed for such cases. We assume that these cases are those whose friends have assumed the responsibility of their support.

Besides Broadmoor in England, and Fisherton House, there is a similar institution at Dundrum in Ireland, and at Perth in Scotland. Whoever reads the Commissioners’ reports of these institutions, and especially

the memoranda of Dr. Manning in regard to them, will be readily convinced that such arrangements are simply a necessity, and that the asylum system of any State must be essentially defective without them.

SUMMARY.

STATE COMPTROLLER ON ASYLUMS FOR THE INSANE.—During the summer (1880) I have visited every State Institution and every State Insane Asylum, with one exception. With my very short experience in the financial management of such institutions, it would be folly for me to express a decided opinion, either in praise or condemnation of their present management in this particular. Their books were willingly shown me and were kept in an accurate and systematic manner, showing every item of expense. Though there may be petty expenditures that might be cut off, I do not believe there is extravagance. The buildings of the several institutions were well cared for and of a durable character, but in one or two cases constructed with a lavishness altogether useless. In its provisions for the housing of the insane the State has been most liberal, and with the completion of either the Binghamton or the Buffalo Asylum, may well halt in this line of expenditure. The Legislature must bear in mind that many counties are providing for their own chronic insane, by the erection of proper buildings, which by law must be approved of by the State Board of Charities, and there is, therefore, no danger of the construction of unsuitable or badly ventilated tenements. If the counties have farms attached to these institutions, upon which they can utilize the labor of their chronic insane, they can undoubtedly maintain

them at a weekly cost not in excess of the amount paid by them to the State institutions, and the "herding" together of large numbers of this unfortunate class will be avoided, and their labor more advantageously employed.

It is not within my province to speak of the treatment of the insane, but I can not refrain from saying that in all the asylums which I visited, I found the patients comfortably clothed, in appearance well fed, and their sleeping rooms and wards, in the main, well ventilated. I saw patients in restraint, but I saw none in cruel restraint, nor do I believe, judging from the men who are at present at the head of our State asylums, that cruelty or neglect in any form is either allowed or practiced.

ASYLUM FIRES.—There seems to have been a singular fatality recently among lunatic asylums, as far as fires are concerned. The recent disastrous one at St. Peter, Minn., is still fresh in our minds, when we are called upon to chronicle a similar occurrence at the State Asylum, Danville, Pa. The fire broke out on Saturday evening, March 5th, in a closet of one of the womens' wards, which was temporarily vacated for painting. As far as we are informed, the cause of the fire is unknown.

At the time the alarm was given, many of the patients were assembled in the Chapel, and steps were immediately taken for their safety, as well as that of those remaining on the wards. The entire number of patients were removed—but four men eloped.

The center building, the eastern wing and all but eight wards of the western wing have been destroyed; these and the engine-house and out-buildings alone remaining. The loss is estimated at from \$400,000 to

\$450,000, on which there is an insurance of \$266,500.

Accommodations for the patients have been found in the other State Asylums of Pennsylvania.

On Sunday morning, March 6th, while the fire at Danville was burning, an attempt to burn the Asylum for the Insane at Topeka, Kansas, was discovered. Some person had lighted a fire against an outside door at the foot of one of the stairways of the wards. After the flames were extinguished, some paper, candle wicking and a package of powder were discovered on the door-sill. An insane man who had been wandering about town and preaching on the street corners, was arrested on suspicion and found to be the incendiary.

SCHOOL FOR FEEBLE-MINDED YOUTH.—Miss Eleanor W. Rose, has opened a home school for this purpose at Colchester, Conn., and it has now been in successful operation for more than a year. Just such a school as this has long been needed, and the one under Miss Rose's direction seems to have been opened under the most favorable auspices.

UNIVERSITY OF PENNSYLVANIA.—We are glad to hear that this University has established a lectureship on Insanity, and that Dr. Charles K. Mills, of Philadelphia, so well known as a contributor to the literature of mental and nervous diseases, has been appointed lecturer. He will give clinical instruction in the Insane Department of Philadelphia Hospital, and is prepared to visit with his class the Norristown Asylum, as well as other institutions in the vicinity of Philadelphia.

NEW JOURNALS.—There have lately appeared three new quarterly journals devoted to mental and nervous diseases. 1. The *Archives de Neurologie*, published

in Paris under the direction of Prof. Charcot, with M. Bourneville as editor-in-chief. 2. The *Revista Frenopática Barcelonesa*, published at Barcelona, and edited by Dr. Juan Giné y Partagas. 3. *L' Encéphale*, under the editorship of MM. Ball and Luys. Its columns are open for: *a.* Original contributions. *b.* Didactic lectures. *c.* Articles on the medical jurisprudence of insanity. *d.* Clinical cases. *e.* General reviews on topics of current interest. *f.* Bibliographical notices. *g.* Reports of societies presenting discussions on nervous and mental diseases.

—The Thirty-Sixth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, will be held at the Rossin House, in the city of Toronto, Ontario, commencing at 10 o'clock A. M., on Tuesday, June 14, 1881.

When Assistant Physicians represent an Institution, a notice of that fact should be sent to the Secretary.

Resolved, That the Secretary, when giving notice of the time and place of the next meeting, be requested to urge on members the importance of prompt attendance at the organization and of remaining with the Association till the close of its sessions.

JOHN CURWEN, *Secretary*.

HARRISBURG, PA., March 15, 1881.

OBITUARY.

ISAAC RAY, M. D., LL. D.—The death of Dr. Ray, on the 31st of March last, at Philadelphia, where he took up his final residence in 1867, while it brings us a sudden and sorrowful consciousness of irreparable loss to the profession, at the same time recalls the sense of satisfaction with which we look upon the career of a man eminent and honorable in his day and generation, who leaves behind him permanent monuments of his usefulness, and the beneficent influence of a life and labors that extended beyond the allotted limits of three score and ten years.

Dr. Ray was born at Beverley, Mass., January 16, 1807. His literary education was received at Phillips Academy and Bowdoin College, when he defrayed his expenses by teaching school during the vacations, a discipline which, it is safe to say, has been as fruitful, at least as any other, in forming the character of the distinguished men of our country. He commenced the study of medicine in the office of Dr. Shattuck, of Boston, and graduated at Harvard Medical School in 1827. He entered upon the practice of his profession in Portland, Me., where, in 1831 he was united in marriage to the estimable lady who has been called to mourn his decease at a date just two months short of fifty years of a harmonious and happy married life. He soon afterwards removed to Eastport, Me., where, in 1838, he produced and published his first work, "The Medical Jurisprudence of Insanity," a book which has passed through six editions, and has been largely quoted by criminal lawyers, though some of its positions and ideas, especially those of a so-called moral insanity, have been controverted in this JOURNAL and

elsewhere, and are not perhaps generally accepted, though Dr. Ray was not a man who, on this account, would lose the courage of his convictions.

In 1841, Dr. Ray was appointed Superintendent of the State Hospital for the Insane at Augusta, Me., where he remained till 1846, when he accepted an appointment to the Superintendency of the Butler Hospital, at Providence, R. I., which was then about to be established. After a short visit to Europe, and an examination of some of the principal institutions of England and the Continent, he returned to Providence and supervised the construction of the buildings for the Butler Hospital, which was chiefly the result of private munificence, and which was finally opened for the reception of patients in 1847. In this work he had the assistance of Dr. Bell, of the McLean Asylum, who contributed materially in the arrangement of the details. In this Institution, Dr. Ray remained a laborious administrator and faithful student of this great specialty for the benefit of the public—*non sibi sed toti*—until the year 1867, when, impelled by considerations of health, he resigned, and removed to Philadelphia, where he has since resided.

Dr. Ray was one of the "original thirteen," who, in 1844, organized the "Association of Medical Superintendents of American Institutions for the Insane," and was its President from May, 1855, to May, 1859. In 1863, he published a second work, entitled "Mental Hygiene," and, in 1873, a third entitled "Contributions to Mental Pathology," a title which was probably intended to cover no more than such "contributions" as he had already made in the way of papers, review articles, and reports from time to time pertaining to the subject of insanity. No less than twelve of them are papers which he had contributed to this JOURNAL, to

which he has been a frequent contributor through its whole history; and our readers will allow that for graces of style and breadth of information, few contributors have been more pleasant and interesting. In Philadelphia, where his health became visibly improved, his life was far from an idle one. Besides the frequent calls upon him for professional consultations, and as an expert in criminal cases before the courts, or in testamentary disputes, his pen was pretty constantly engaged upon work for the medical and literary journals, and papers for the various associations to which he belonged, such as one lying before us on "Recoveries from Mental Disease," read before the College of Physicians of Philadelphia, May 7, 1879. Dr. Ray was seldom or never absent from the meetings of the Association of Medical Superintendents, and kept up the liveliest interest in its discussions up to the time of his death. Only last year he read a paper before it, at the meeting in Philadelphia, on the "Increase of Mental Disorders," and took part in the usual discussions with a wisdom and pertinency that always commanded the respect and admiration of his fellow members. Dr. Ray was not a stranger to the treasures of general literature. His very ingenious *brochure* on the "Ideal Characters of Hospital Officers," suggested by a tractate of the quaint old Thomas Fuller, and read at the meeting of the Association in Baltimore, in 1873, will be well remembered by many of our readers as a remarkable *jeu d'esprit* out of the usual line; and it is not too much to say—as was implied in some impromptu verses made by one of the members on this occasion—that the charming description of the "Good Superintendent" was an unconscious delineation of his own character and career. As the poet says of Socrates:

"And what he taught, he was."

Dr. Ray was also an interested reader of religious works, and a man of strong religious conviction. His funeral took place at Providence, from the chapel of the Butler Hospital, where his principal life-work had been, and the interment was in the adjoining cemetery. The Congregational minister who officiated, testified in an emphatic manner to the depth and reality of his religious character, as well as to the eminence and beneficent influence of his scientific attainments.

DR. J. C. HAWTHORNE.—Dr. Hawthorne, of the Oregon Asylum for the Insane, died of apoplexy, on Tuesday, February 16th, at the age of sixty-two. He was born at Meadville, Pa., March 12th, 1819. In 1850 he went to California, and in the year following commenced the practice of medicine in that State.

In 1857 Dr. Hawthorne removed to Portland, Oregon, where he has since resided, and in 1858, associated with Dr. A. M. Loryea, now of San Francisco, undertook the charge of the County Hospital. Subsequently they assumed charge of the State insane, by contract, an arrangement which continued in force for several years.

As Superintendent of the Asylum, Dr. Hawthorne gave entire satisfaction, and in his death the State loses an exemplary, public-spirited citizen, and a capable and intelligent official, the profession a member of large experience and ripe knowledge.

FOREIGN REPORTS.

The following reports have been received :

ENGLAND :

Report of the County Lunatic Asylum at Prestwich : 1880.

Thirty-Third Annual Report of the Somerset and Bath Pauper Lunatic Asylum : 1880.

Twenty-Third Annual Report of the Cambridgeshire, Isle of Ely, and Borough of Cambridge Pauper Lunatic Asylum : 1880.

Eleventh Annual Report of the Lunatic Asylum for the Borough of Leicester, situate at Humberstone : 1880.

Thirtieth Annual Report of the Asylum for the Insane Poor of the County of Wilts : 1880.

WALES :

Twenty-Eighth Annual Report of the Joint Lunatic Asylum at Abergavenny, for the Counties of Monmouth, Brecon and Radnor : 1880.

SCOTLAND :

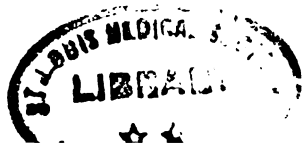
Sixtieth Annual Report of the Directors of the Dundee Royal Asylum for Lunatics : 1880.

Reports of the Royal Lunatic Asylum of Montrose : 1880.

IRELAND :

Forty-Sixth Annual Report of the Waterford District Lunatic Asylum : 1880.

Annual Report of the Richmond District Lunatic Asylum : 1880.



PERIODICAL

THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW

RENEWED BOOKS ARE SUBJECT TO
IMMEDIATE RECALL

Library, University of California, Davis

Series 458A